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THE PROFESSOR ON THE CASE

CHAPTER I

"THE THINKING MACHINE"

I was absolutely impossible. Twenty-five chess masters from the world at large, foregathered for the annual championships, unanimously declared it impossible, and unanimity on any given point is an unusual mental condition for chess masters. Not one would concede for an instant that it was within the range of human achievement. Some grew red in the fice as they argued it, others smiled loftly and were silent, still others dismissed the matter in a word as wholly absurd.

A cisual remark by the distinguished scientist and logician, Profes or Augustus S. F. X. Vin Dusen provoked the discussion. He had in the past, aroused bitter disputes by some chance remark. In fact had been once a sort of controversal centre of the services It had been due to his moder tannounce, sent of a standard had been due to his moder tannounce, sent of a standard to his discussion has been the fact to have the victor of Princessols, in a sort in vertical to

Later that university had felt honoured when he accepted its degree of LL D.

For a score of years, educational and scientific institutions of the world had amused themselves by crowding degrees upon him. He had initials that stood for things he couldn't pronounce; degrees from France, England, Russia, Germany, Italy, Sweden and Spain These were expressed recognition of the fact that his was the foremost brain in the sciences. The imprint of his crabbed personality lay heavily on half a dozen of its branches. Finally there came a time when argument was respectfully silent in the face of one of his conclusions.

The remark which had arrayed the chess masters of the world into so formidable and unanimous a dissent was made by Professor Van Dusen in the presence of three other gentlemen of note One of these, Dr. Charles Elbert, happened to be a chess enthusiast

"Chess is a shameless perversion of the functions of the brain," was Professor Van Dusen's declaration in his perpetually irritated voice "It is a sheer waste of effort, greater because it is possibly the most difficult of all abstract problems Of course logic will solve it Logic will solve any problem—not most of them but any problem A thorough understanding of its rules would enable anyone to defeat your greatest chess players would be inevitable, just as inevitable as that two and two make four, not some times but all the time I don't know chess because I never do useless things, but I could take a few hours of competent instruction and defeat a man who has devoted his life to it. His mind is cramped, bound down to the logic of chess. not, mine employs logic in its widest scope" Mine is

Dr Elbert shook his head vigorously

"It is impossible," he asserted

"Nothing is impossible," snapped the scientist. "The human mind can do anything. It is all we have to lift us above the brute creation. For Heaven's sake leave us that"

The aggressive tone, the uncompromising egotism brought a flush to Dr Elbert's face Professor Van Dusen affected many persons that way, particularly those fellow savants who, themselves men of distinction, had ideas of their own

"Do you know the purposes of chess? Its countless combinations?" asked Dr Elbert

"No," was the crabbed reply "I know nothing whatever of the game beyond the general purpose which, I understand to be, to move certain pieces in certain directions to stop an opponent from moving his King Is that correct?"

"Yes," said Dr Elbert slowly, "but I never heard

it stated just that way before "

"Then, if that is correct, I maintain that the true logician can defeat the chess expert by the pure mechanical rules of logic. I'll take a few hours some time, acquaint myself with the moves of the pieces and defeat you to convince you."

Professor Van Dusen glared savagely into the eyes of

Dr Elbert

"Not me," said Dr Elbert "You say anyone—you for instance, might defeat the greatest chess player Would you be willing to meet the greatest chess player after you 'acquaint' yourself with the game?"

"Certainly," said the scientist. "I have frequently

found it necessary to make a fool of myself to convince people I'll do it again "

This, then, was the acrimonious beginning of the discussion which aroused chess masters and brought open dissent from eminent men who had not dared for years to dispute any assertion by the distinguished Professor Van Dusen It was arranged that at the conclusion of the championships Professor Van Dusen should meet the winner This happened to be Tschaikowsky, the Russian, who had been champion for half a dozen years

After this expected result of the tournament Hillsbury, a noted American master, spent a morning with Professor Van Dusen in the latter's modest apartments on Beacon Hill He left there with a sadly puzzled face, that afternoon Professor Van Dusen met the Russian champion The newspapers had said a great deal about the affair and hundreds were present to witness the game

There was a little murmur of astonishment when Professor Van Dusen appeared. He was slight, almost child-like in body, and his thin shoulders seemed to droop beneath the weight of his enormous head. He wore a number eight hat. His brow rose straight and dome-like and a heavy shock of long, yellow hair gave him almost a grotesque appearance. The eyes were narrow slits of blue squinting eternally through thick spectacles; the face was small, clean shaven, drawn and white with the pallor of the student. His lips made a perfectly straight line. His hands were remarkable for their whiteness, their flexibility, and for the length of the slender fingers. One glance showed that physical development had never entered into the schedule of the scientist's fifty years of life.

The Russian smiled as he sat down at the chess table He felt that he was humouring a crank. The other masters were grouped near by, curiously expectant Professor Van Dusen began the game, opening with a Queen's gambit At his fifth move, made without the slightest hesitation, the smile left the Russian's face At the tenth, the masters grew intensely eager. The Russian champion was playing for honour now Professor Van Dusen's fourteenth move was King's castle to Queen's four

"Check," he announced

After a long study of the board the Russian protected his King with a Knight. Professor Van Dusen noted the play then leaned back in his chair with finger tips pressed together. His eyes left the board and dreamily studied the ceiling. For at least ten minutes there was no sound, no movement, then

"Mate in fifteen moves," he said quietly

There was a quick gasp of astonishment. It took the practised eyes of the masters several minutes to verify the announcement. But the Russian champion saw and leaned back in his chair a little white and dazed. He was not astonished, he was helplessly floundering in a maze of incomprehensible things. Suddenly he arose and grasped the slender hand of his conqueror

"You have never played chess before?" he asked.

" Never"

"Mon Dieu! You are not a man, you are a brain—a machine—a thinking machine"

"It's a child's game," said the scientist abruptly There was no note of exultation in his voice, it was still the irritable impersonal tone which was habitual

This, then, was Professor Augustus S F X Van

Dusen, Ph D, LL D, F R S, M D, etc., etc This is how he came to be known to the world at large as The Thinking Machine The Russian's phrase had been applied to the scientist as a title by a newspaper reporter, Hutchinson Hatch It had stuck

CHAPTER II

THE MOTOR BOAT

CAPTAIN HANK BARBER, master mariner, gripped the bow-rail of the Liddy Ann and peered off through the semi-fog of the early morning at a dark streak slashing along through the gray-green waters. It was a motor boat of long, graceful lines, and a single figure, that of a man, sat upright at her helm staring uncompromisingly ahead. She nosed through a roller, staggered a little, righted herself and sped on as a sheet of spray swept over her. The helmsman sat motionless, heedless of the stinging splash of wind-driven water in his face.

"She sure is a-goin' some," remarked Captain Hank, reflectively "By Ginger! If she keeps it up into Boston Harbour she won't stop this side o' the Public Gardens"

Captain Hank watched the boat curiously until she was swallowed up, lost in the mist, then turned to his own affairs. He was a couple of miles out of Boston Harbour, going in, it was six o'clock of a gray morning A few minutes after the disappearance of the motor boat Captain Hank's attention was attracted by the hourse shrick of a whistle two hundred yards away. He dimly traced through the mist the gigantic lines of a great vessel—it seemed to be a ship of war

It was only a few minutes after Captain Hank lost sight of the motor boat that she was again sighted, this time as she flashed into Boston Harbour at full speed She fled past, almost under the prow of a pilot boat, going out, and was hailed At the mess table later the pilot's man on watch made a remark about her.

"Goin'! Well, wasn't she though! Never saw one thing pass so close to another in my life without scrubbin' the paint offen it. She was so close up I could spit in her, and when I spoke the feller didn't even look up—just kept a-goin' I told him a few things that was good for his soul"

Inside Boston Harbour the motor boat performed a miracle. Pursuing a course which was singularly erratic and at a speed more than dangerous she reeled on through the surge of the sea regardless alike of fog, the proximity of other vessels and the heavy wash from larger craft. Here she narrowly missed a tug, there she skimmed by a slow-moving tramp and a warning shout was raised, a fisherman swore at her as only a fisherman can. And finally when she passed into a clear space, seemingly headed for a dock at top speed, she was the most unanimously damned craft that ever came into Boston Harbour.

"Guess that's a through boat," remarked an aged salt, facetiously as he gazed at her from a dock "If that durined fool don't take some o' the speed offen her she'll go through all right—wharf an' all "

Still the man in the boat made no motion, the whiz of her motor, plainly heard in a sudden silence, was undiminished. Suddenly the tumult of warning was renewed. Only a chance would prevent a smash. Then Big John Dawson appeared on the string piece of the

dock 'Big John had a voice that was noted from Newfoundland to Norfolk for its depth and width, and possessed objurgatory powers which were at once the awe and admiration of the fishing fleet

"You ijit!" he bellowed at the impassive helmsman

"Shut off that power an' throw yer hellum"

There was no response, the boat came on directly toward the dock where Big John and his fellows were gathered. The fishermen and loungers saw that a crash was coming and scattered from the string piece.

"The durned fool," said Big John, resignedly

Then came the crash, the rending of timbers, and silence save for the grinding whir of the motor Big John ran to the end of the wharf and peered down. The speed of the motor had driven the boat half way upon a float which careened perilously. The man had been thrown forward and lay huddled up face downward and motionless on the float. The dirty water lapped at him greedily.

Big John was the first man on the float He crept cautiously to the huddled figure and turned it face upward. He gazed for an instant into wide staring eyes then turned to the curious ones peering down from the dock

"No wonder he didn't stop," he said in an awed tone
"The durned fool is dead."

Willing hands gave aid and after a minute the hicless figure lay on the dock. It was that of a man in uniform—the uniform of a forcign navy. He was apparently forty-five years old large and powerful of frame with the sun-browned face of a serman. The jet black of moustache and goatee was startling against the dead colour of the face. The hair was tinged with gray, and on the

back of the left hand was a single letter—"D"—tat-tooed in blue

"He's French," said Big John authoritatively, "an' that's the uniform of a Cap'n in the French Navy" He looked puzzled a moment as he stared at the figure "An' they ain't been a French man-o'-war in Boston Harbour for six months"

After awhile the police came and with them Detective Mallory, the big man of the Bureau of Criminal Investigation, and finally Dr Clough, Medical Examiner. While the detective questioned the fishermen and those who had witnessed the crash Dr Clough examined the body

"An autopsy will be necessary," he announced as he arose

"How long has he been dead?" asked the detective

"Eight or ten hours, I should say The cause of death doesn't appear. There is no shot or knife wound so far as I can see"

Detective Mallory closely examined the dead man's clothing. There was no name or tailor mark, the linen was new, the name of the maker of the shoes had been ripped out with a knife. There was nothing in the pockets, not a piece of paper or even a vagrant coin

Then Detective Mallory turned his attention to the boat Both hull and motor were of French manufacture Long, deep scratches on each side showed how the name had been removed Inside the boat the detective saw something white and picked it up It was a hand-kerchief—a woman's handkerchief, with the initials "E M B" in a corner

"Ah, a woman's in it!" he soliloquised.

Then the body was removed and carefully secluded

Medical Examiner Clough welcomed the eminent Professor Van Dusen's proffer of assistance in his capacity of M. D, while Hatch and other reporters impatiently cooled their toes on the curb. In two hours the autopsy had been completed. The Thinking Machine amused himself by studying the insignia on the dead man's uniform, leaving it to Dr. Clough to make a startling statement to the press. The man had not been murdered; he had died of heart failure. There was no poison in the stomach, nor was there a knife or pistol wound.

Then the inquisitive press poured in a flood of questions. Who had scratched off the name of the boat? Dr. Clough didn't know. Why had it been scratched off? Still he didn't know. How did it happen that the name of the maker of the shoes had been ripped out? He shrugged his shoulders. What did the handkerchief have to do with it? Really he couldn't conjecture. Was there any inkling of the dead man's identity? Not so far as he knew. Any scar on the body which might lead to identification?

Hatch made a few mental comments on officials in general and skilfully steered The Thinking Machine away from the other reporters

"Did that man die of heart failure?" he asked, flatly.

"He did not," was the curt reply "It was poison"

"But the Medical Examiner specifically stated that there was no poison in the stomach," persisted the reporter.

The scientist did not reply. Hatch struggled with and suppressed a desire to ask more questions. On reaching home the scientist's first act was to consult an

encyclopædia. After several minutes he turned to the reporter with an inscrutable face

"Of course the idea of a natural death in this case is absurd," he said, shortly "Every fact is against it. Now, Mr Hatch, please get for me all the local and Nev York newspapers of the day the body vas found-not the day after Send or bring them to me, then come again at five this afternoon"

'But-but-" Hatch blurted.

"I can say nothing until I I now all the facts," inter rupted The Thinling Machine

Hatch personally delivered the specified newspapers

ship owner in a small way. He was successful in his small undertakings and for fifteen years has been a millionaire. He has a certain social position, partly through his wife whom he married a year and a half ago. She was Edith Marston Belding, a daughter of the famous Belding family He has an estate on the North Shore"

"Very good," commented the scientist. "Now we will find out something about how this man was killed"

At North Station they took train for a small place on the North Shore, thirty-five miles from Boston There The Thinking Machine made some inquiries and finally they entered a lumbersome carry-all After a drive of half an hour through the dark they saw the lights of what seemed to be a pretentious country place Somewhere off to the right Hatch heard the roar of the restless ocean

"Wait for us," commanded The Thinking Machine as the carry-all stopped

CHAPTER III

THE WOMAN IN THE CASE

THE Thinking Machine ascended the steps, followed by Hatch, and rang. After a minute or so the door was opened and a light flooded out. Standing before them was a Japanese—a man of indeterminate age with the graven face of his race.

"Is Mr Dudley in?" asked The Thinking Machine.

"He has not that pleasure," replied the Japanese, and Hatch smiled at the queerly turned phrase

"Mrs. Dudley?" asked the scientist

"Mrs Dudley is attiring herself in clothing," replied

the Japanese "If you will be pleased to enter"

The Thinking Machine handed him a card and was shown into a reception room. The Japanese placed chairs for them with courteous precision and disappeared. After a short pause there was a rustle of silken skirts on the stairs, and a woman—Mrs. Dudley—entered. She was not pretty—she was stunning rather, tall, of superb figure and crowned with a glory of black hair.

"Mr Van Dusen" she asked as she glanced at the card

The Thinking Machine bowed low, albeit awkwardly Mrs. Dudley sank down on a couch and the two men resumed their seats. Then was a little pause, Mrs. Dudley broke the silence at last

"Well, Mr. Van Dusen, if you-" she began

"You have not seen a newspaper for several days?" asked The Thinking Machine, abruptly

"No," she replied, wonderingly, almost smiling " Why?"

"Can you tell me just where your husband is?"

The Thinking Machine squinted at her in that aggressive way which was habitual A quick flush crept into her face, and grew deeper at the sharp scrutiny quiry lay in her eyes.

"I don't know," she replied at last. "In Boston, I

presume."

"You haven't seen him since the night of the ball?" "No I think it was half past one o'clock that night "

" Is his motor boat here?"

"Really, I don't know I presume it is. May I ask the purpose of this questioning?"

The Thinking Machine squinted hard at her for half a minute Hatch was uncomfortable, half resentful even, at the agitation of the woman and the sharp, cold tone of his companion.

"On the night of the ball," the scientist went on, passing the question, "Mr Dudley cut his left arm just above the wrist It was only a slight wound A piece of court plaster was put on it Do you know if he put at on himself? If not, who did?"

"I put it on," replied Mrs Dudley, unhesitatingly,

wonderingly.

"And whose court plaster was it?" "Mine—some I had in my dressing room Why?" The scientist arose and red across the floor, glancing once out the

'ooked at

Hatch inquiringly and was about to speak when The Thinking Machine stopped beside her and placed his slim fingers on her wrist. She did not resent the action, was only curious if one might judge from her eyes.

"Are you prepared for a shock?" the scientist asked.
"What is it?" she demanded in sudden terror

"This suspense-"

"Your husband is dead—murdered—poisoned!" said the scientist with sudden brutality. His fingers still lay on her pulse. "The court plaster which you put on his arm and which came from your room was covered with a virulent poison which was instantly transfused into his blood."

Mrs Dudley did not start or scream Instead she stared up at the Thinking Machine a moment, her face became pallid, a little shiver passed over her Then she fell back on the couch in a dead faint

"Good!" remarked The Thinking Machine complacently And then as Hatch started up suddenly "Shut that door," he commanded.

The reporter did so "When he turned back his companion was leaning over the unconscious woman. After a moment he left her and went to a window where he stood looking out. As Hatch watched he saw the colour coming back into Mrs. Dudley's face. At last she opened her eyes.

"Don't get hysterical," The Thinking Machine directed calmly "I know you had nothing whatever to do with your husband's death. I want only a little assistance to find out who killed him"

"Oh my God!" exclumed Mrs Dudley "Dead!"

Suddenly tears leapt from her eyes and for several

minutes the two men respected her grief When at last she raised her face her eyes were red, but there was a rigid expression about the mouth

"If I can be of any service—" she began "Is this the boat house I see from this window?" asked The Thinking Machine "That long, low building with the light over the door?"

"Yes," replied Mrs Dudley

"You say you don't know if the motor boat is there now?"

"No, I don't"

"Will you ask your Japanese servant, and if he doesn't know, let him go see, please?"

Mrs Dudley arose and touched an electric button After a moment the Japanese appeared at the door

"Osaka, do you know if Mr Dudley's motor boat is in the boat house?" she asked

"No, honourable lady."

"Will you go yourself and see?"

Osaka bowed low and left the room, closing the door gently behind him The Thinking Machine again crossed to the window and sat down staring out into the night Mrs Dudley asked questions, scores of them, and he answered them in order until she knew the details of the finding of her husband's body—that is, the details the public knew She was interrupted by the reappear-

" I do not find the motor boat in the house, honourable lady "

"That is all," said the scientist.

Again Osaka bowed and retired.

"Now, Mrs Dudley," resumed The Thinking Machine almost gently, "we know your husband wore a French

naval costume at the masked ball May I ask what you wore?"

"It was a Queen Elizabeth costume," replied Mrs Dudley, "very heavy with a long train"

"And if you could give me a photograph of Mr

Dudley?"

Mrs Dudley left the room an instant and returned with a cabinet photograph. Hatch and the scientist looked at it together, it was unmistakably the man in the motor boat.

"You can do nothing yourself," said The Thinking Machine at last, and he moved as if to go "Within a few hours we will have the guilty person You may rest assured that your name will be in no way brought into the matter unpleasantly"

Hatch glanced at his companion, he thought he detected a sinister note in the soothing voice, but the face expressed nothing Mrs Dudley ushered them into the hall, Osaka stood at the front door. They passed out and the door closed behind them

Hatch started down the steps but The Thinking Machine stopped at the door and tramped up and down The reporter turned back in astonishment. In the dim reflected light he saw the scientist's finger raised, enjoining silence, then saw him lean forward suddenly with his ear pressed to the door. After a little he rapped gently. The door was opened by Osaka who obeyed a beckoning motion of the scientist's hand and came out Silently he was led off the veranda into the yard, he appeared in no way surprised.

"Your master, Mr Dudley has been murdered" declared The Thinking Machine quietly, to Osaka "We know that Mrs. Dudley killed him" he went on

as Hatch stared, "but I have told her she is not suspected. We are not officers and cannot arrest her Can you go with us to Boston, without the knowledge of anyone here and tell what you know of the quarrel between husband and wife to the police?"

Osaka looked placidly into the eager face

"I had the honour to believe that the circumstances would not be recognized," he said finally "Since you know, I will go"

"We will drive down a little way and wait for you."

The Japanese disappeared into the house again Hatch was too astounded to speak, but followed The Thinking Machine into the carry-all. It drove away a hundred yards and stopped. After a few minutes an impalpable shadow came toward them through the night. The scientist peered out as it came up

"Osaka?" he asked softly.

"Yes"

An hour later the three men were on a train, Boston bound Once comfortably settled the scientist turned to the Japanese.

"Now if you will please tell me just what happened the night of the ball?" he asked, "and the incidents leading up to the disagreement between Mr. and Mrs Dudley?"

"He drank elaborately," Osaka explained reluctantly, in his quaint English, "and when drinking he was brutal to the honourable lady. Twice with my own eyes I saw him strike her—once in Japan where I entered his service while they were on a wedding journey, and once here—On the night of the ball he was immeasurably intoxicated, and when he danced he fell down to the floor—The honourable lady was chagrined and angry—

she had been angry before There was some quarrel which I am not comprehensive of They had been widely divergent for several months. It was, of course, not prominent in the presence of others."

"And the cut on his arm where the court plaster was applied?" asked the scientist "Just how did he get that?"

"It was when he fell down," continued the Japanese
"He reached to embrace a carved chair and the carved
wood cut his arm I assisted him to his feet and the
honourable lady sent me to her room to get court plaster
I acquired it from her dressing table and she placed it
on the cut"

"That makes the evidence against her absolutely conclusive," remarked The Thinking Machine, as if finally There was a little pause, and then "Do you happen to know just how Mrs Dudley placed the body in the boat?"

"I have not that honour," said Osaka. "Indeed I am not comprehensive of anything that happened after the court plaster was put on except that Mr. Dudley was affected some way and went out of the house. Mrs Dudley, too; was not in the ball room for ten minutes or so afterwards"

Hutchinson Hatch stared frankly into the face of The Thinking Machine, there was nothing to be read there Still deeply thoughtful Hatch heard the brakeman bawl "Boston" and mechanically followed the scientist and Osaka out of the station into a cab They were driven immediately to Police Headquarters Detective Mallory was just about to go home when they entered his office.

"It may enlighten you, Mr Mallory" announced the scientist coldly "to know that the man in the motor

boat was not a French naval officer who died of natural causes—he was Langham Dudley, a millionaire ship owner He was murdered It just happens that I know the person who did it "

The detective arose in astonishment and stared at the slight figure before him inquiringly, he knew the man too well to dispute any assertion he might make. "Who is the murderer?" he asked

The Thinking Machine closed the door and the spring

lock clicked.
"That man there," he remarked calmly, turning on

Osaka.

For one brief instant there was a pause and silence then the detective advanced upon the Japanese with hand outstretched. The agile Osaka leapt suddenly,

hand outstretched. The agile Osaka leapt suddenly, as a snake strikes, there was a quick, fierce struggle and Detective Mallory sprawled on the floor There had been just a twist of the wrist—a trick of jiu jitsu—and Osaka had flung himself at the locked door As he fumbled there Hatch, deliberately and without com-

punction, raised a chair and brought it down on his head. Osaka sank down without a sound. It was an hour before they brought him around again. Meanwhile the detective had patted and petted half a dozon suddividual.

again Meanwhile the detective had patted and petted half a dozen suddenly acquired bruises, and had then searched Osaka. He found nothing to interest him save a small bottle. He uncorked it and started to smell it when The Thinking Machine snatched it away "You fool, that'll kill you!" he exclaimed.

Osaka sat, lashed hand and foot to a chair, in Detective Mallory's office—so placed by the detective for safe keeping. His face was no longer expressionless, there

were fear and treachery and cunning there So he listened, perforce, to the statement of the case by The Thinking Machine who leaned back in his chair, squinting steadily upward and with his long, slender fingers pressed together

"Two and two make four, not some times but all the time," he began at last as if disputing some previous assertion "As the figure two, wholly disconnected from any other, gives small indication of a result, so is an isolated fact of little consequence. Yet that fact added to another, and the resulting fact added to a third, and so on, will give a final result. That result, if every fact is considered, must be correct. Thus any problem may be solved by logic, logic is inevitable

"In this case the facts, considered singly, might have been compatible with either a natural death, suicide, or murder—considered together they proved murder. The climax of this proof was the removal of the maker's name from the dead man's shoes, and a fact strongly contributory was the attempt to destroy the identity

of the boat A subtle mind lay back of it all "

"I so regarded it," said Detective Mallory "I was confident of murder until the Medical Examiner—"

"We prove a murder" The Thinking Machine went on serenely "The method? I was with Dr Clough at the autopsy There was no shot, or kinfe wound, no poison in the stomach Knowing there was murder I sought further Then I found the method in a slight, lagged wound on the left arm. It had been covered with court plaster. The heart showed constriction without apparent cause, and while Dr Clough examined it I took off this court plaster. Its odour, an unusual one, told me that poison had been transfused into the

blood through the wound So two and two had made four

"Then—what poison? A knowledge of botany aided me I recognized faintly the trace of an odour of an herb which is not only indigenous to, but grows exclusively in Japan Thus a Japanese poison. Analysis later in my laboratory proved it was a Japanese poison, virulent, and necessarily slow to act unless it is placed directly in an artery. The poison on the court plaster and that you took from Osaka is identical"

The scientist uncorked the bottle and permitted a single drop of a green liquid to fall on his handkerchief. He allowed a minute or more for evaporation then handed it to Detective Mallory who sniffed at it from a respectful distance. Then The Thinking Machine produced the bit of court plaster he had taken from the dead man's arm, and again the detective sniffed. "The same." the scientist resumed as he touched a

"The same," the scientist resumed as he touched a lighted match to the handkerchief and watched it crumble to ashes, "and so powerful that in its pure state mere inhalation is fatal. I permitted Dr Clough to make public his opinion—heart failure—after the autopsy for obvious reasons. It would reassure the murderer for instance if he saw it printed, and besides Dudley did die from heart failure; the poison caused it

"Next came identification. Mr Hatch learned that no French war ship had been within hundreds of miles of Boston for months The one seen by Captain Barber might have been one of our own This man was supposed to be a French naval officer, and had been dead

less than eight hours Obviously he did not come from a ship of his own country Then from where?

"I know nothing of uniforms, yet I examined the

insignia on the arms and shoulders closely after which I consulted my encyclopædia. I learned that while the uniform was more French than anything else it was really the uniform of no country, because it was not correct. The insignia were mixed.

"Then what? There were several possibilities, among them a fancy dress ball was probable. Absolute accuracy would not be essential there. Where had there been a fancy dress ball? I trusted to the newspapers to tell me that They did. A short dispatch from a place on the North Shore stated that on the night before the man was found dead there had been a fancy dress ball at the Langham Dudley estate.

"Now it is as necessary to remember every fact in solving a problem as it is to consider every figure in arithmetic Dudley! Here was the "D" tattooed on the dead man's hand 'Who's Who's showed that Langham Dudley married Edith Marston Belding Here was the 'E M B' on the handkerchief in the boat Langham Dudley was a ship owner, had been a sailor, was a millionaire Possibly this was his own boat built in France."

Detective Mallory was staring into the eyes of The Thinking Machine in frank admiration, Osaka to whom the narrative had thus far been impersonal, gazed, gazed as if fascinated Hutchinson Hatch, reporter, was drinking in every word greedily

"We went to the Dudley place," the scientist resumed after a moment: "This Japanese opened the door Japanese poison! Two and two were still making four But I was first interested in Mrs Dudley. She showed no agitation and told me frankly that she placed the court plaster on her husband's arm, and that it came

"I will not," exclaimed Osaka, suddenly. It was the first time he had spoken

"It probably had to do with a girl in Japan," explained The Thinking Machine, easily. "The murder had been a long cherished project, such a one as revenge through love would have inspired"

It was a day or so later that Hutchinson Hatch called to inform The Thinking Machine that Osaka had confessed and had given the motive for the murder. It was not a nice story.

"One of the most astonishing things to me," Hatch added, "is the complete case of circumstantial evidence against Mrs Dudley, beginning with the quarrel and leading to the application of the poison with her own hands I believe she would have been convicted on the actual circumstantial evidence had you not shown conclusively that Osaka did it "

"Circumstantial fiddlesticks!" snapped The Thinking Machine "I wouldn't convict a yellow dog of stealing jam on circumstantial evidence alone, even if he had jam all over his nose" He squinted truculently at Hatch for a moment "In the first place well behaved dogs don't eat jam," he added more mildly.

CHAPTER IV

DRESSING ROOM "A"

That strange, seemingly inexplicable chain of circumstances which had to do with the mysterious disappearance of the famous actress, Irene Wallack, from her dressing room in a Springfield theatre during a performance, while the echo of tumultuous appreciation still rang in her ears, was one of the most fascinating problems which was not purely scientific that The Thinking Machine was ever asked to solve. The scientist's aid was enlisted in this singular mystery by Hutchinson Hatch, reporter

"There is something far beyond the ordinary in this affair," Hatch explained to the scientist. "A woman has disappeared, evaporated into thin air in the hearing, almost in sight, of her friends. The police can make nothing of it. It is a problem for a greater mind than theirs."

Professor Van Dusen waved the newspaper man to a seat and himself sank back into a great cushioned chair in which his diminutive figure seemed even more childlike than it really was

"Tell me the story," he commanded petulantly

The enormous yellow head rested against the chur

from her room There was instantly a doubt as to her connection with the murder, her immediate frankness aroused it.

"Finally, with my hand on her pulse—which was normal—I told her as brutally as I could that her husband had been murdered. Her pulse jumped frightfully and as I told her the cause of death it wavered, weakened and she fainted. Now if she had known her husband were dead—even if she had killed him—a mere statement of his death would not have caused that pulse. Further I doubt if she could have disposed of her husband's body in the motor boat. He was a large man and the manner of her dress even, was against this Therefore she was innocent.

"And then? The Japanese, Osaka, here I could see the door of the boat house from the room where we were Mrs Dudley asked Osaka if Mr Dudley's boat were in the house He said he didn't know. Then she sent him to see He returned and said the boat was not there, yet he had not gone to the boat house at all learned it from another servant, still it was a point against him"

Again the scientist paused and squinted at the Japanese For a moment Osaka withstood the gaze, then his beady eyes shifted and he moved uncomfortably

"I tricked Osaka into coming here by a ludicrously simple expedient," The Thinking Machine went on steadily. "On the train I asked if he knew just how Mrs Dudley got the body of her husband into the boat. Remember at this point he was not supposed to know that the body had been in a hear that

that the body had been in a boat at all. He said he didn't know and by that very answer admitted that he

knew the body had been placed in the boat He knew because he put it there himself He didn't merely throw it in the water because he had sense enough to know if the tide didn't take it out it would rise, and possibly be found.

"After the slight injury Mr Dudley evidently wandered out toward the boat house The poison was working, and perhaps he fell. Then this man removed all identifying marks, even to the name in the shoes, put the body in the boat and turned on full power. He had a right to assume that the boat would be lost, or that the dead man would be thrown out. Wind and tide and a loose rudder brought it into Boston Harbour I do not attempt to account for the presence of Mrs Dudley's handkerchief in the boat. It might have gotten there in one of a hundred ways."

"How did you know husband and wife had quar-

relled?" asked Hatch

"Surmise to account for her not knowing where he was," replied The Thinking Machine "If they had had a violent disagreement it was possible that he would have gone away without telling her, and she would not have been particularly worried, at least up to the time we saw her As it was she presumed he was in Boston, perhaps Osaka here gave her that impression?"

The Thinking Machine turned and stared at the

Japanese currously

"Is that correct?" he asked.

Osaka did not answer

"And the motive?" asked Detective Mallory, at last

"Will you tell us just why you killed Mr Dudley?" asked The Thinking Machine of the Japanese

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dered down there. There was even a search made of the 'flies'—that is the galleries over the stage where

the men who work the drop-curtains are stationed." There was silence for a long time. The Thinking Machine twiddled his fingers and continued to stare up-

ward. He had not looked at the reporter. He broke the silence after a time. "How was Miss Wallack dressed at the time of her disappearance ? "

"In doublet and hose—that is, tights," the newspaper man responded. "She wears that costume from

the second act until practically the end of the play." "Was all her street clothing in her room?" "Yes, everything, spread across an unopened trunk of costumes It was all as if she had left the room to answer her cue—all in order even to an open box of

"No sign of a struggle?" " No " "Or trace of blood?" " Nothing " "Her maid? Did she have one?"

"Oh, yes. I neglected to tell you that the maid, Gertrude Manning, had gone home immediately after the first act. She grew suddenly ill and was ex-

The Thinking Machine turned his squint eyes on the reporter for the first time. "Ill?" he repeated. "What was the matter?"

"That I can't say," replied the reporter. "Where is she now ?"

"I don't know. Everyone forgot all about her in the excitement about Miss Wo

"What kind of candy was it?"

" I'm afraid I don't know that either "

"Where was it bought?"

The reporter shrugged his shoulders, that was something else he didn't know The Thinking Machine shot out the questions aggressively, staring meanwhile steadily at Hatch who squirmed uncomfortably

"Where is the candy now?" demanded the scientist

Again Hatch shrugged his shoulders

"How much did Miss Wallack weigh?"

The reporter was willing to guess at this He had seen her half a dozen times

"Between a hundred and thirty and a hundred and

forty pounds," he ventured

"Does there happen to be a hypnotist connected with the company?"

"I don't know," Hatch replied.

The Thinking Machine waved his slender hands impatiently, he was annoyed.

"It is perfectly absurd, Mr Hatch," he expostulated, "to come to me with only a few facts and ask advice. If you had all the facts I might be able to do something, but this_____"

The newspaper man was nettled. In his own profession he was accredited a man of discernment and acumen. He resented the tone, the manner, even the

seeming trivial questions which the other asked

"I don't see," he began, "that the candy even if it had been poisoned as I imagine you think possible, or a hypnotist could have had anything to do with Miss Wallack's disappearance Certainly neither poison nor hypnotism would have made her invisible"

"Of course you don't see,' blazed The Thinking

back, the blue eyes squinted steadily upward, the slender fingers were pressed tip to tip. The Thinking Machine was in a receptive mood.

"Miss Wallack is thirty years old and beautiful," the

reporter began "As an actress she has won recognition not only in this country but in England You may have read something of her in the daily papers, and if—"
"I never read the papers unless I am compelled to "

"I never read the papers unless I am compelled to," the other interrupted curtly "Go on"

"She is unmarried, and so far as anyone knows, had no immediate intention of changing her condition," Hatch resumed, staring curiously at the thin face of the scientist. "I presume she had admirers—all beautiful women of the stage have—but she is one whose life has been perfectly clean, whose record is an open book. I tell you this because it might have a bearing on your conclusion as to a possible reason for her disappearance."

"Now the actual circumstances of that disappearance. Miss Wallack has been playing a Shakespearean repertoire. Last week she was in Springfield On Saturday night, which concluded her engagement there, she appeared as Rosalind in 'As You Like It' The house was crowded She played the first two acts amid great enthusiasm, and this despite the fact that she was suffering intensely from headache to which she was subject at times. After the second act she returned to her dressing room and just before the curtain went up for the third the stage manager called her. She replied that she would be out immediately. There seems no possible "Rosalind does not appear in the third act until the

curtain has been up for six minutes When Miss Wallack's cue came she did not answer it. The stage man-

ager rushed to her door and again called her There was no answer Then, fearing that she might have fainted, he went in She was not there A hurried search was made without result, and the stage manager, finally, was compelled to announce to the audience that the sudden illness of the star would cause a slight delay, that he hoped within ten or fifteen minutes she would be able to resume her part

"The curtain was lowered and the search resumed Every nook and corner back of the footlights was gone over. The stage doorkeeper, William Meegan, had seen no one go out. He and a policeman had been standing at the stage door talking for at least twenty minutes. It is, therefore, conclusive that Miss Wallack did not leave the theatre by the stage door. The only other way it was possible to leave the stage was over the footlights. Of course she didn't go that way. Yet no trace of her has been found.

"The windows?" asked The Thinking Machine

"The stage is below the street level," Hatch explained "The window of her dressing room Room A, is small and barred with iron. It opens into an air shaft that goes straight up for ten feet, and that is covered with an iron grating. The other windows on the stage are not only inaccessible but are also barred with iron. She could not have approached either of these windows without being seen by other members, of the company or the stage hands."

"Under the stage?" suggested the scientist

"Nothing," the reporter went on "It is a large cemented basement which was vicint. It was searched because there was, of course, a chance that Miss Wallack might have become temporarily unbalanced and wan-

Machine "If you did you wouldn't have come to me.

When did this thing happen?"

"Saturday night, as I said," the reporter informed him a little more humbly. "It closed the engagement in Springfield Miss Wallack was to have appeared here tonight."

"When did she disappear—what time by the clock, I mean?"

"The stage manager's time slip shows that the curtain for the third act went up at 941—he spoke to her, say, one minute before, or at 940. The action of the play before she appears in the third act takes six minutes, therefore——"

"In precisely seven minutes a woman, weighing more than 130 pounds, certainly not dressed for the street, disappeared from her dressing room. It is now 5 18 Monday afternoon I think we may solve this crime within a few hours."

"Crime?" Hatch repeated eagerly. "Do you imagine there is a crime then?"

Professor Van Dusen didn't heed the question. Instead, he arose and paced back and forth across the reception room half a dozen times, his hands behind his back and his eyes cast down. At last he stopped and faced the reporter who had also arisen.

"Miss Wallack's company, I presume, with the baggage, is now here," he said. "See every male member of the company, talk to them and particularly study their eyes Don't overlook anyone, however humble. Also find out what became of the box of candy, and if possible how many pieces are out of it Then report here to me. Miss Wallack's safety may depend upon your speed and accuracy."

Hatch was frankly startled "How---->" he began

"Don't stop to talk—hurry," commanded The Thinking Machine "I will have a cab waiting when you come back We must get to Springfield"

CHAPTER V

FITTING A HYPOTHESIS

The newspaper man rushed away to obey orders. He didn't understand them at all—studying men's eyes was not in his line, but he obeyed nevertheless. An hour and a half later he returned to be thrust unceremoniously into a waiting cab by The Thinking Machine. The cab rattled away toward South Station where the two men caught a train, just about to move out, for Springfield. Once settled in their seats the scientist turned to Hatch who was nearly suffocating with suppressed information

"Well?" he asked.

well asked

"I found out several things," the reporter burst out "First, Miss Wallack's leading man, Langdon Mason who has been in love with her for three years, bought the candy at Schuyler's in Springfield early Saturday evening before he went to the theatre. He told me so himself, rather reluctantly, but I—I made him say it."

"Ah!" exclaimed The Thinking Machine. It was a most unequivocal ejaculation "How many pieces of candy are out of the box?"

"Only three," explained Hatch. "Miss Wallack's things were packed into the open trunk in her dressing room, the candy with them I induced the manager—"

"Yes, yes, yes," interrupted The Thinking Machine impatiently "What sort of eyes has Mason? What colour?"

"Blue, frank in expression, nothing unusual about them," said the reporter

"And the others?"

"I didn't quite know what you meant by studying their eyes, so I got a set of photographs I thought

perhaps they might help "

"Excellent! Excellent!" commented The Thinking Machine He shuffled the pictures through his fingers, stopping now and then to study one, and to read the names printed below "Is that the leading man?" he asked at last, and handed one to Hatch

" Yes "

Professor Van Dusen did not speak again. The train pulled into Springfield at 9 20 Hatch followed him out of the station and, without a word, climbed into a cab

"Schuyler's candy store," commanded The Think-

ing Machine "Hurry"

The cab rushed off through the night Ten minutes later it stopped before a brilliantly lighted confectionery shop. The Thinking Machine led the way inside and approached the girl behind the chocolate counter.

"Will you please tell me if you remember this man's

face?" he asked as he produced Mason's photograph

"Oh, yes, I remember him," the girl replied. "He's an actor"

"Did he buy a small box of chocolates of you Saturday evening early?" was the next question.

"Yes I recall it because he seemed to be in a hurry—in fact, said he was anxious to get to the theatre to pack"

"And do you recall that this man ever bought candy here?" asked the scientist. He produced another photograph and handed it to the girl. She studied it a moment while Hatch craned his neck, vainly, to see.

"I don't recall that he ever did," the girl answered

finally.

The Thinking Machine turned away abruptly and disappeared into a telephone booth. He remained there for five minutes, then rushed out to the cab again, with Hatch following closely.

"City Hospital," he commanded.

Again the cab dashed away. Hatch was dumb; there seemed to be nothing to say. The Thinking Machine was plainly pursuing some definite line of inquiry yet the reporter didn't know what. The case was getting kaleidoscopic This impression was strengthened when he found himself standing beside The Thinking Machine in City Hospital conversing with the House Surgeon, Dr. Carlton.

"Is there a Miss Gertrude Manning here?" was the

scientist's first question

"Yes," replied the surgeon "She was brought here Saturday night suffering from—"

"Strychnine poisoning, yes I know," interrupted the other. "Picked up in the street, probably. I am a physician If she is well enough I should like to ask her a couple of questions"

Dr. Carlton agreed and Professor Van Dusen, still followed faithfully by Hatch, was ushered into the ward where Miss Wallack's maid lay, pallid and weak. The Thinking Machine picked up her hand and his slender finger rested for a minute on her pulse. He nodded as if satisfied

"Miss Manning, can you understand me?" he

"Yes," she replied weakly

"How many pieces of the candy did you eat?"

"Two," said the girl She stared into the face above her with dull eyes

"Did Miss Wallack eat any of it up to the time you left the theatre?"

" No "

If The Thinking Machine had been in a hurry previously he was racing now—Hatch trailed on dutifully behind, down the stairs and into a cab, whence Professor Van Dusen shouted a word of thanks to Dr Carlton This time their destination was the stage door of the theatre from which Miss Wallack had disappeared

The reporter was muddled. He didn't know anything very clearly except that three pieces of candy were missing from the box. Of these the maid had eaten only two She had been poisoned. Therefore it seemed reasonable to suppose that if Miss Wallack had eaten the third piece she also would be poisoned. But poison would not make her invisible. The reporter shook his head hopelessly

William Meegan, the stage door-keeper, was easily found.

"Can you inform me, please," began The Thinking Machine, "if Mr Mason left a box of candy with you last Saturday night for Miss Wallack?"

"Yes," Meegan replied good-naturedly He was amused at the little man "Miss Wallack hadn't arrived Mason brought a box of candy for her nearly every night and usually left it here I put the one Saturday night on the shelf here"

"Did Mr Mason come to the theatre before or after the others on Saturday night?" $\label{eq:comparison} .$

"Before," replied Meegan. "He was unusually early, presumably to pack"

"And the other members of the company coming in stop here, I imagine, to get their mail?" and the scientist squinted up at the mail box above the shelf. "Sure, always."

The Thinking Machine drew a long breath. Up to this time there had been little perplexed wrinkles in his brow. Now they disappeared.

"Now, please," he went on, "was any package or box of any kind taken from the stage on Saturday night between nine and eleven o'clock?"

"No," said Meegan positively. "Nothing at all until the company's baggage was removed at midnight."

"Miss Wallack had two trunks in her dressing room?"

"Yes. Two whacking big ones, too."

"How do you know?"

"Because I helped put 'em ın, and helped take 'em out," replied Meegan.

Suddenly The Thinking Machine turned and rushed out to the cab, with Hatch, his shadow, close behind.

"Drive, drive as fast as you know how to the nearest long distance telephone," the scientist instructed the cabby. "A woman's life is at stake."

Half an hour later Professor Van Dusen and Hutchinson Hatch were on a train rushing back to the city. The Thinking Machine had been in the telephone booth for fifteen minutes. When he came out Hatch had asked several questions to which the scientist vouchsafed no answer. They were perhaps thirty minutes out of pringfield before the scientist showed any disposition

to talk. Then he began without preliminary much as if he were resuming a former conversation

"Of course if Miss Wallack didn't leave the stage of the theatre, she was there," he said "We will admit that she did not become invisible. The problem, therefore, was to find her on the stage. The fact that no violence was used against her was conclusively proven by half a dozen instances. No one heard her scream, there was no struggle, no trace of blood. Ergo, we assume in the beginning that she must have consented to the first steps which led to her disappearance.

"Now let's shape a hypothesis which will fit all the circumstances Miss Wallack had a severe headache Hypnotic influence will cure headaches. Was there a hypnotist to whom Miss Wallack would have submitted herself? Assume there was Then would that hypnotist take advantage of his control to place her in a cataleptic condition? Assume a motive and he would Then, how would he dispose of her?

"From this point questions radiate in all directions We will confine ourselves to the probable, granting for the moment that the hypothesis—the only one that fits all the circumstances—is correct—Obviously, a hypnotist would not have attempted to get her out of the dressing room—What remains? One of the two trunks in her room."

Hatch gasped.

"You mean you think it possible that she was hypnotized and placed in that second trunk, the one that was strapped and locked?" he asked

"It's the only thing that could have happened," said The Thinking Machine emphatically, "therefore that is just what did happen"

"Why it's horrible!" exclaimed Hatch. "A live woman in a trunk for forty-eight hours? Even if she were alive then, she must be dead now "

The reporter shuddered a little and gazed curiously at the inscrutable face of his companion. He saw no pity, no horror there, there was merely the reflection of the working of a brain

"It does not necessarily follow that she is dead," explained The Thinking Machine. "If she ate that third piece of candy before she was hypnotized she may be dead. If it were placed in her mouth after she was in a cataleptic condition the chances are that she is not dead. The candy would not melt and her system could not absorb the poison "

"But she would be suffocated—her bones would be broken by the rough handling of the trunkthere are a hundred possibilities," the reporter suggested.

"A person in a cataleptic condition is singularly impervious to injury," replied the scientist. "There is of course, a chance of suffocation, but a great deal of air may enter a trunk "

"And the candy?" Hatch asked.
"Yes, the candy. We know that two pieces of it nearly killed the maid Yet Mr Mason admitted having bought it This admission indicated that this poisoned candy is not the candy he bought. Is Mr. Mason a hypnotist? He hasn't the eyes His picture tells me that. We know that Mr. Mason did buy candy for Miss Wallack on several occasions We know that sometimes he left it with the stage door-keeper. We know that members of the company stopped there for

mail. We instantly see that it is possible for one to

"Was the piece of candy taken from her mouth?"

"Sure, a chocolate cream. It hadn't melted."

"I'll come back here in a few minutes and awake her." said The Thinking Machine. "Come along with us now, and get the man."

Wonderingly the detective entered the cab and the three were driven to a big hotel a dozen blocks away. Before they entered the lobby The Thinking Machine handed a photograph to Mallory, who studied it under an electric light.

"That man is upstairs with several others," explained the scientist. "Pick him out and get behind him when we enter the room. He may attempt to shoot. Don't touch him until I say so."

In a large room on the fifth floor Manager Stanfeld of the Irene Wallack Company had assembled the men who played in her support. This was done at the request by 'phone of The Thinking Machine There were no preliminaries when Professor Van Dusen entered. He squinted comprehensively about him, then went straight to Langdon Mason, and stared into his eyes for a moment.

"Were you on the stage in the third act of your play before Miss Wallack was to appear—I mean the play last Saturday night?" he asked.

"I was," Mason replied, "for at least three minutes"

"Mr. Stanfeld, is that correct?"

"Yes," replied the manager

There was a long tense silence broken only by the heavy footsteps of Mallory as he walked toward a distant corner of the room. A faint flush crept into Mason's face as he realized that the questions had been almost an accusation. He started to speak, but the steady,

impassive voice of The Thinking Machine stopped him.

"Mr Mallory, take your prisoner!"

Instantly there was a fierce, frantic struggle and those present turned to see the detective with his great arms locked about Stanley Wightman, the melancholy Jaques of "As You Like It" The actor's face was distorted, madness blazed in the eyes, and he snarled like a beast at bay By a sudden movement Mallory threw Wightman and manacled the hands, then looked up to find The Thinking Machine peering over his shoulder into the eyes of the prostrate man

"Yes, he's a hypnotist," the scientist remarked in self-satisfied conclusion. "It always tells in the pupils

of the eyes " An hour later Miss Wallack was aroused, told a story

almost identical with that of The Thinking Machine, and three months later resumed her tour And meanwhile Stanley Wightman, whose brooding over a hopeless love for her made a maniac of him, raves and shrieks the lines of Jaques in the seclusion of a padded cell Alienists pronounce him incurable

CHAPTER VI

THE CRYSTAL GAZER

With hideous, goggling eyes the great god Budd sat cross-legged on a pedestal and stared stolidly into the semi-darkness. He saw, by the wavering light of a peacock lamp which swooped down from the ceiling with wings outstretched, what might have been a nook in a palace of East India. Draperies hung here, there, everywhere, richly embroidered divans sprawled about, fierce tiger rugs glared up from the floor, grotesque idols grinned mirthlessly in unexpected corners; strange arms were grouped on the walls. Outside the trolley cars clanged blatantly.

The single human figure was a distinct contradiction of all else. It was that of a man in evening dress, smoking. He was fifty, perhaps sixty, years old with the ruddy colour of one who has lived a great deal out of doors. There was only a touch of gray in his abundant hair and moustache. His eyes were steady and clear, and indolent

For a long time he sat, then the draperies to his right parted and a girl entered She was a part of the picture of which the man was a contradiction Her lustrous black hair flowed about her shoulders, lambent mysteries lay in her eyes. Her dress was the dress of the East. For a moment she stood looking at the man and then entered with light tread.

"Varick Sahib," she said, timidly, as if it were a greeting "Do I intrude?" Her voice was softly guttural with the accent of her native tongue

"Oh no, Jadeh Come in," said the man

She smiled frankly and sat down on a hassock near him.

"My brother?" she asked.

"He is in the cabinet"

Varick had merely glanced at her and then continued his thoughtful gaze into vacancy. From time to time she looked up at him shyly, with a touch of eagerness, but there was no answering interest in his manner. His thoughts were far away.

"May I ask what brings you this time, Sahib?" she

inquired at last

"A little deal in the market," responded Varick, carelessly "It seems to have puzzled Adhem as much as it did me He has been in the cabinet for half an hour"

He stared on musingly as he smoked, then dropped his eyes to the slender, graceful figure of Jadeh With knees clasped in her hands she leaned back on the hassock deeply thoughtful Her head was tilted upward and the flickering light fell full on her face. It crossed Varick's mind that she was pretty, and he was about to say so as he would have said it to any other woman, when the curtains behind them were thrown apart and they both glanced around.

Another man—an East Indian—entered This man was Adhem Singh, the crystal gazer, in the ostentatious robes of a seer. He, too, was a part of the picture There was an expression of apprehension, mingled with some other impalpable quality on his strong face.

"Well, Adhem?" inquired Varick.

"I have seen strange things, Sahib," replied the seer, "The crystal tells me of danger." solemnly

"Danger?" repeated Varick with a slight lifting of "Oh well, in that case I shall keep out of it" his brows

"Not danger to your business, Sahib," the crystal gazer went on with troubled face, "but danger in another way "

The girl, Jadeh, looked at him with quick, startled eyes and asked some question in her native tongue. He answered in the same language, and she rose suddenly with terror stricken face to fling herself at Varick's feet, weeping Varick seemed to understand too, and looked at the seer in apprehension

"Death?" he exclaimed. "What do you mean?"

Adhem was silent for a moment and bowed his head respectfully before the steady, inquiring gaze of the white man

"Pardon, Sahib," he said at last. "I did not remember that you understood my language"

"What is it?" insisted Varick, abruptly. "Tell me."

"I cannot, Sahib"

"You must," declared the other. He had arisen commandingly. "You must"

The crystal gazer crossed to him and stood for an instant with his hand on the white man's shoulder, and his eyes studying the fear he found in the white man's face.

"The crystal, Sahib," he began "It tells me that that---'

"No, no, brother," pleaded the girl.

"Go on," Varick commanded

"It grieves me to say that which will pain one whom

I love as I do you Sahib," said the seer, slowly "Perhaps you had rather see for yourself?"

"Well, let me see then," said Varick "Is it in the

crystal?"

"Yes, by the grace of the gods"

"But I can't see anything there." Varick remembered "I've tried scores of times"

"I believe this will be different, Sahib," said Adhem, quietly "Can you stand a shock?"

Varick shook himself a little impatiently

"Of course," he replied. "Yes, yes"

"A very serious shock?"

Again there was an impatient twist of Varick's shoulders "Yes, I can stand anything," he exclaimed shortly

"What is it? Let me see"

He strode toward that point in the draperies where Adhem had entered while the girl on her knees, sought with entreating hands to stop him

"No, no, no," she pleaded. "No"

"Don't do that," Varick expostulated in annoyance, but gently he stooped and lifted her to her feet. "I am not a child—or a fool"

He threw aside the curtains As they fell softly behind him he heard a pitiful little cry of grief from Jadeh

and set his teeth together hard.

He stood in the crystal cabinet It was somewhat larger than an ordinary closet and had been made impenetrable to the light by hangings of black velvet. For awhile he stood still so that his eyes might become accustomed to the utter blackness, and gradually the sinister fascinating crystal ball appeared, faintly visible by its own mystic luminosity. It rested on a pedestal of black velvet

Varick was accustomed to his surroundings—he had been in the cabinet many times. Now he dropped down on a stool in front of the table whereon the crystal lay and leaning forward on his arms stared into its limpid depths. Unblinkingly for one, two, three minutes he sat there with his thoughts in a chaos

After awhile there came a change in the ball. It seemed to glow with a growing light other than its own Suddenly it darkened completely, and out of this utter darkness grew shadowy, vague forms to which he could give no name Finally a veil seemed lifted for the globe grew brighter and he leaned forward, eagerly, fearfully. Another veil melted away and a still brighter light illumined the ball

Now Varick was able to make out objects. Here was

a table littered with books and papers, there a chair, yonder a shadowy mantel Gradually the light grew until his tensely fixed eyes pained him, but he stared steadily on Another quick brightness came and the objects all became clear He studied them incredulously for a few seconds, and then he recognized what he saw. It was a room—his study—miles away in his apartments

A sudden numb chilliness seized him but he closed his teeth hard and gazed on The outlines of the crystal were disappearing, now they were gone and he saw more A door opened and a man entered the room into which

he was looking Varick gave a little gasp as he recognized the man It was—himself He watched the man—himself—as he moved about the study aimlessly for a

time as if deeply troubled, then as he dropped into a chain at the desk Varick read clearly on the vision-face those emotions which he was suffering in person. As he looked the man made some hopeless gesture with his

.

hands—lits hands—and leaned forward on the desk with his head on his arms. Varick shuddered

For a long time, it seemed, the man sat motionless, then Varick became conscious of another figure—a man—in the room. This figure had come into the vision from his own view point. His face was averted—Varick did not recognize the figure, but he saw something else and started in terror. A knife was in the hand of the unknown, and he was creeping stealthily toward the unconscious figure in the chair—himself—with the weapon raised.

An inarticulate cry burst from Varick's colourless lips—a cry of warning—as he saw the unknown creep on, on, on toward—himself He saw the figure that was himself move a little and the unknown leaped. The upraised knife swept down and was buried to the handle Again a cry, an unintelligible shriek, burst from Varick's lips, his heart fluttered and perspiration poured from his face. With incoherent mutterings he sank forward helplessly

How long he remained there he didn't know, but at last he compelled himself to look again. The crystal glittered coldly on its pedestal of velvet but that hideous thing which had been there was gone. The thought came to him to bring it back, to see more, but repulsive fear, terror seized upon him. He rose and staggered out of the cabinet. His face was pallid and his hands clasped

and unclasped nervously

Jadeh was lying on a divan sobbing. She leaped to her feet when he entered and looking into his face she knew. Again she buried her face in her hands and wept afresh. Adhem stood with moody eyes fixed on the great god Budd.

"I saw—I understand," said Varick between his teeth, "but—I don't believe it."

"The crystal never lies, Sahib," said the seer, sorrow-

fully.

"But it can't be-that," Varick declared protestingly

"Be careful, Sahib, oh, be careful," urged the girl.

"Of course I shall be careful," said Varick, shortly. Suddenly he turned to the crystal gazer and there was a menace in his tone. "Did such a thing ever appear to you before?"

"Only once, Sahib."

" And did it come true?"

Adhem inclined his head, slowly.

"I may see you tomorrow," exclaimed Varick suddenly. "This room is stifling. I must go out."

With twitching hands he drew on a light coat over his evening dress, picked up his hat and rushed out into the world of realities The crystal gazer stood for a moment while Jadeh clung to his arm, tremblingly.

"It is as the gods will," he said sadly, at last.

Professor Augustus S. F. X. Van Dusen—The Thinking Machine—received Howard Varick in the small reception room and invited him to a seat. Varick's face was ashen; there were dark lines under his eyes and in them there was the glitter of an ungovernable terror Every move showed the nervousness which gripped him The Thinking Machine squinted at him curiously, then dropped back into his big chair.

For several minutes Varick said nothing; he seemed to be struggling to control himself. Suddenly he burst out.

"I'm going to die some day next week Is there any way to prevent it?"

The Thinking Machine turned his great yellow head and looked at him in a manner which nearly indicated surprise

"Of course if you've made up your mind to do it," he said irritably, "I don't see what can be done" There was a trace of irony in his voice, a coldness which brought Varick around a little. "Just how is it going to happen?"

"I shall be murdered—stabbed in the back—by a man whom I don't know," Varick rushed on desperately

"Dear me, dear me, how unfortunate," commented the scientist. "Tell me something about it But here" He arose and went into his laboratory. After a moment he returned and handed a glass of some effervescent liquid to Varick, who gulped it down. "Take a minute to pull yourself together," instructed the scientist.

He resumed his seat and sat silent with his long, slender fingers pressed tip to tip Gradually Varick recovered. It was a fierce fight for the mastery of emotion

"Now," directed The Thinking Machine at last, "tell me about it"

Varick told just what happened lucidly enough, and The Thinking Machine listened with polite interest. Once or twice he turned and looked at his visitor

"Do you believe in any psychic force?" Varick asked once.

"I don't disbelieve in anything until I have proven that it cannot be," was the answer "The God who hung a sun up there has done other things which we will never understand." There was a little pause, then "How did you meet this man Adhem Singh?"

"I have been interested for years in the psychic, the occult, the things we don't understand," Varick replied "I have a comfortable fortune, no occupation, no dependents and made this a sort of hobby I have studied it superficially all over the world I met Adhem Singh in India ten years ago, afterwards in England where he went through Oxford with some financial assistance from me, and later here. Two years ago he convinced me that there was something in crystal gazing—call it telepathy, self hypnotism, sub-conscious mental action what you will. Since then the science, I can call it nothing else, has guided me in every important act of my life"

"Through Adhem Singh?"

" Yes "

"And under a pledge of secrecy, I imagine—that is secrecy as to the nature of his revelations?" "Ves"

"Any taint of insanity in your family?"

Varick wondered whether the question was in the nature of insolent reproof, or was a request for informa-He construed it as the latter.

"No," he answered "Never a touch of it"

"How often have you consulted Mr. Singh?"

"Many times There have been occasions when he would tell me nothing because, he explained, the crystal told him nothing There have been other times when he advised me correctly He has never given me bad advice even in intricate stock operations, therefore I have been compelled to believe him in all things"

"You were never able to see anything yourself in the crystal until this vision of death, last Tuesday night you

"That was the first "

"How do you know the murder is to take place at

any given time—that is next week as you say?"

"That is the information Adhem Singh gave me," was the reply "He can read the visions—they mean more to him than—"

"In other words he makes it a profession?" interrupted the scientist

" Yes "

"Go on "

"The horror of the thing impressed me so—both of us—that he has at my request twice invoked the vision since that night. He, like you, wanted to know when it would happen. There is a calendar by weeks in my study, that is, only one week is shown on it at a time. The last time the vision appeared he noted this calendar. The week was that beginning next Sunday, the 21st of this month. The only conclusion we could reach was that it would happen during that week."

The Thinking Machine arose and paced back and forth across the room deeply thoughtful At last he stopped

before his visitor

"It's perfectly amazing," he commented emphatically "It approaches nearer to the unbelievable than anything I have ever heard of"

Varick's response was a look that was almost grateful.

"You believe it impossible then?" he asked, eagerly

"Nothing is impossible," declared the other aggressively "Now, Mr Varick, you are firmly convinced that what you saw was prophetic? That you will die in that manner, in that place?"

"I can't believe anything else—I can't," was the

response.

"And you have no idea of the identity of the murderer-to-be, if I may use that phrase?"

"Not the slightest. The figure was wholly unfamiliar to me."

"And you know—you know—that the room you saw in the crystal was yours?"

"I know that absolutely. Rugs, furniture, mantel, books, everything was mine."

The Thinking Machine was again silent for a time.

"In that event," he said at last, "the affair is perfectly simple. Will you place yourself in my hands and obey my directions implicitly?"

"Yes" There was an eager, hopeful note in Varick's voice now.

"I am going to try to disarrange the affairs of Fate a little bit," explained the scientist gravely. "I don't know what will happen but it will be interesting to try to throw the inevitable, the pre-ordained I might say, out of gear, won't it?"

With a quizzical, grim expression about his thin lips The Thinking Machine went to the telephone in an adjoining room and called some one. Varick heard neither the name nor what was said, merely the mumble of the irritable voice. He glanced up as the scientist

"Have you any servants—a valet for instance?" asked the scientist.

"Yes, I have an aged servant, a valet, but he is now in France, I gave him a little vacation I really don't need one now as I live in an apartment house-almost a

"I don't suppose you happen to have three or four thousand dollars in your pocket?"

"No, not so much as that," was the puzzled reply "If it's your fee-"

"I never accept fees," interrupted the scientist. "I interest myself in affairs like these because I like them. They are good mental evercise. Please draw a cheque for, say four thousand dollars, to Hutchinson Hatch."

"Who is he?" asken Varick There was no reply The cheque was drawn and handed over without further

comment.

It was fifteen or twenty minutes later that a cab pulled up in front of the house. Hutchinson Hatch, reporter, and another man whom he introduced as Philip Byrne were ushered in As Hatch shook hands with Varick The Thinking Machine compared them mentally They were relatively of the same size and he bobbed his head as if satisfied

"Now, Mr Hatch," he instructed, "take this cheque and get it cashed immediately, then return here. Not a word to anybody"

Hatch went out and Byrne discussed politics with Varick until he returned with the money The Thinking Machine thrust the bills into Byrne's hand and he counted it, afterward stowing it away in a pocket.

"Now, Mr Varick, the keys to your apartment,

please," asked the scientist.

They were handed over and he placed them in his

pocket Then he turned to Varick.

"From this time on," he said, "your name is John Smith You are going on a trip, beginning immediately, with Mr Byrne here You are not to send a letter, a postal, a telegram or a package to anyone, you are to buy nothing, you are to write no checks, you are not to speak to or recognize anyone, you are not to telephone or

attempt in any manner to communicate with anyone, not even me. You are to obey Mr. Byrne in everything he says"

Varick's eyes had grown wider and wider as he listened.

"But my affairs—my business?" he protested

"It is a matter of your life or death," said The Thinking Machine shortly.

For a moment Varick wavered a little He felt that he was being treated like a child.

" As you say," he said finally.

"Now, Mr. Byrne," continued the scientist, "you heard those instructions. It is your duty to enforce them. You must lose this man and yourself. Take him away somewhere to another place. There is enough money there for ordinary purposes. When you learn that there has been an arrest in connection with a certain threat against Mr. Varick, come back to Boston—to me—and bring him. That's all."

Mr Byrne arose with a business like air.

"Come on, Mr Smith," he commanded Varick followed him out of the room

CHAPTER VII

A MATTER OF LOGIC

Here was a table littered with books and papers, there a chair, yonder a shadowy mantel * * * A door opened and a man entered the room * * * * moved about the study aimlessly for a time as if deeply troubled, then dropped into a chair at the desk * * * * made some hopeless gesture with his hands and leaned forward on the desk with his head on his arms * * * another figure in the room * * * * knife in his hand * * * * creeping stealthily toward the unconscious figure in the chair with the knife raised * * * * the unknown crept on, on, on * * * *

There was a blinding flash, a gush of flame and smoke, a sharp click and through the fog came the unexcited voice of Hutchinson Hatch, reporter

"Stay right where you are, please"

"That ought to be a good picture," said The Thinking Machine.

The smoke cleared and he saw Adhem Singh standing watching with deep concern a revolver in the hand of Hatch, who had suddenly arisen from the desk in Varick's room. The Thinking Machine rubbed his hands briskly

"Ah, I thought it was you," he said to the crystal
"Put down the knife, please. That's right It

seems a little bold to have interfered with what was to be like this, but you wanted too much detail, Mr Singh You might have murdered your friend if you hadn't gone into so much trivial theatrics"

"I suppose I am a prisoner?" asked the crystal gazer

"You are," The Thinking Machine assured him cheerfully. "You are charged with the attempted murder of Mr. Varick Your wife will be a prisoner in another half hour with all those who were with you in the conspiracy"

He turned to Hatch, who was smiling broadly. The reporter was thinking of that wonderful flash-light photograph in the camera that The Thinking Machine held,—the only photograph in the world, so far as he knew, of a man in the act of attempting an assassination

"Now, Mr. Hatch," the scientist went on, "I will 'phone to Detective Mallory to come here and get this gentleman, and also to send men and arrest every person to be found in Mr Singh's home. If this man tries to run—shoot"

The scientist went out and Hatch devoted his attention to his sullen prisoner. He asked half a dozen questions and receiving no answers he gave it up as hopeless. After awhile Detective Mallory appeared in his usual state of restrained astonishment and the crystal gazer was led away.

Then Hatch and The Thinking Machine went to the Adhem Singh house The police had preceded them and gone away with four prisoners, among them the girl Jadeh They obtained an entrance through the courtesy of a policeman left in charge and sought out the crystal cabinet Together they bowed over the glittering globe as Hatch held a match

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of its way to tell him whether a certain stock will go up or down A sense of humour ought to convince him that disembodied spirits do not come back and rap on tables in answer to asinine questions. These things are merely prostitutions of the Divine Revelations."

Hatch smiled a little at the lecture platform tone, and Detective Mallory chewed his cigar uncomfortably. was there to find out something about crime; this thing was over his head.

"This is merely preliminary," The Thinking Machine went on after a moment. "Now as to this crystal gazing affair—a little reason, a little logic. When Mr Varick came to me I saw he was an intelligent man who had devoted years to a study of the so-called occult Being intelligent he was not easily hoodwinked, yet he had been hoodwinked for years, therefore I could see that the man who did it must be far beyond the blundering fool usually found in these affairs.

"Now Mr Varick, personally, had never seen anything in any crystal—remember that—until this 'vision' of death When I knew this I knew that 'vision' was stamped as quackery, the mere fact of him seeing it proved that, but the quackery was so circumstantial that he was convinced. Thus we have quackery. Why? For a fee? I can imagine successful guesses on the stock market bringing fees to Adhem Singh, but the 'vision' of a man's death is not the way to his pocket-book. If not for a fee—then what? "A deeper motive was instantly apparent Mr. Varick

was wealthy, he had known Singh and had been friendly with him for years, had supplied him with funds to go through Oxford, and he had no family or dependents. Therefore it seemed probable that a will, or perhaps in another way, Singh would benefit by Mr Varick's death There was a motive for the 'vision,' which might have been at first an effort to scare him to death, because he had a bad heart. I saw all these things when Mr Varick talked to me first, several days after he saw the 'vision' but did not suggest them to him Had I done so he would not have believed so sordid a thing, for he believed in Singh, and would probably have gone his way to be murdered or to die of fright as Singh intended.

"Knowing these things there was only the labour of trapping a clever man. Now the Hindu mind works in strange channels. It loves the mystic, the theatric, and I imagined that having gone so far Singh would attempt to bring the 'vision' to a reality. He presumed, of course, that Mr. Varick would keep the matter to him-

self

"The question of saving Varick's life was trifling—If he was to die at a given time in a given room the thing to do was to place him beyond possible reach of that room at that time—I 'phoned to you, Mr Hatch, and asked you to bring me a private detective who would obey orders, and you brought Mr Byrne—You heard my instructions to him. It was necessary to hide Mr Varick's identity and my elaborate directions were to prevent anyone getting the slightest clue as to him having gone, or as to where he was—I don't know where he is now

"Immediately Mr Varick was off my hands, I had Martha, my housekeeper, write a note to Singh explaining that Mr Varick was ill, and confined to his room, and for the present was unable to see anyone. In this note a date was specified when he would call on Singh Martha wrote, of course, as a trained nurse who was in

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attendance merely in day time. All these points were made perfectly clear to Singh

"That done, it was only a matter of patience Mr.

Hatch and I went to Mr Varick's apartments each night -I had Martha there in day time to answer questions -and waited, in hiding Mr. Hatch is about Varick's

size and a wig helped us along. What happened then you know. I may add that when Mr. Varick told me the story I commented on it as being almost unbeliev-

able He understood, as I meant he should, that I referred to the 'vision' I really meant that the elaborate scheme which Singh had evolved was unbelievable He might have killed him just as well with a drop of poison or something equally pleasant"

The Thinking Machine stopped as if that were all "But the crystal?" asked Hatch "How did that work? How was it I saw you?"

"That was a little ingenious and rather expensive," said The Thinking Machine, "so expensive that Singh must have expected to get a large sum from success I can best describe the manufacture of the 'vision' as a variation of the principle of the camera obscura It was done with lenses of various sorts and a multitude of mirrors, and required the assistance of two other men-

those who were taken from Singh's house with Jadeh. "First, the room in Mr Varick's apartments was duplicated in the basement of Singh's house, even to rugs, books and wall decorations There two men rehearsed the murder scene that Mr. Varick saw They were disguised of course You have looked through the wrong end of a telescope of course? Well, the original reduction of the murder scene to a size where all of it would appear in a small mirror was accomplished that

way From this small mirror there ran pipes with a series of mirrors and lenses, through the house, carrying the reflection of what was happening below, so vaguely though that features were barely distinguishable. This pipe ran up inside one of the legs of the table on which the crystal rested, and then, by reflection to the pedestal

"You, Mr Hatch, saw me lift that crystal several times and each time you might have noticed the click I was trying to find then, how the reflection reached it When you lifted it slowly and I put my fingers under it I knew There was a small trap in the pedestal, covered with velvet This closed automatically and presented a solid surface when the crystal was lifted, and opened when the crystal was replaced. Thus the reflection reached the crystal which reversed it the last time and made it appear right side up to the watcher The apparent growth of the light in the crystal was caused below Some one simply removed several sheets of gauze, one at a time, from in front of the first lens"

"Well!" exclaimed Detective Mallory "That's the

most elaborate affair I ever heard of "

"Quite right," commented the scientist, "but we don't know how many victims Singh had. Of course any 'vision' was possible with a change of scene in the basement. I imagine it was a profitable investment because there are many fools in this world."

"What did the girl have to do with it?" asked Hatch

"That I don't know" replied the scientist "She was pretty Perhaps she was used as a sort of bait to attract a certain class of men She was really Singh's wife I imagine, not his sister She was a prominent figure in the mummery with Varick of course With

her and Singh was able to lend great effectiveness to the general scheme."

A couple of days later Howard Varick returned to

the city in tow of Philip Byrne. The Thinking Machine asked Mr. Varick only one question of consequence.
"How much money did you intend to leave Singh?"
"About two hundred and fifty thousand dollars." was

"How much money did you intend to leave Singh?"
"About two hundred and fifty thousand dollars," was furthering an investigation into the psychic. He and I had planned just how it was to be spent."

I had planned just how it was to be spent."

Personally Mr. Varick is no longer interested in the occult.

CHAPTER VIII

THE INTERRUPTED WIRELESS

Seven bells sounded The door of the wireless telegraph office on the main deck of the transatlantic liner Uranus was opened quietly, and a man thrust his head out One quick glance to his right, along the narrow, carpeted passage, showed it to be deserted, another glance to his left showed a young woman approaching, with steps made uncertain by the rolling and pitching of the ship In one hand she carried a slip of paper, folded once—The man paused only to see this much, then withdrew his head and closed the door abruptly

The young woman paused opposite the wireless office, and thoughtfully conned over something on the slip of paper. Finally she leaned against the wall, erased a word with a pencil, wrote in another, then laid a hand on the knob of the door as if to enter. The door was locked. She hesitated for an instant, then rapped. There was a pause, and she rapped the second time.

"What is it?" came a man's voice from inside

"I wish to send a message," responded the young woman

"Who is that?" came another query

"It's Miss Bellingdame," was the impatient response

any message now," came the short, harsh answer at last. Again there was a pause. "It's impossible to send which has just been sighted to the north" "I desire to get a wireless to a friend on the Breslin

"There has been an-"Can't be done—it's out of the question," came the matter of the utmost importance I must send it!" "Why?" demanded Miss Bellingdame. "It's a " It may not be possible to send it at all "

"Well, can't it be sent after the accident has been even, in the voice. seemed to ponder a note of deep concern, excitement Miss Bellingdame was silent for a moment, as she an accident." bosifine, quick spoken answer

Still there was no answer She remained there for demanded. "Is that Mr. Ingraham talking ?" Miss Bellingdame There was no answer. repaired?" she asked at last

At just about the moment she sat down the telephone expression on her face, over the treacherous, dimpling Atlantic with a troubled was rechning in a deck chair, gazing thoughtfully out turned and retraced her steps A few minutes later she a minute, perhaps, staring at the locked door, then

the wue. "Captain Deihl?" came a short, sharp query over hand to answer it. impatiently laid aside a remarkably promising pinochle buzz in the Captain's cabin sounded, and Captain Deihl

you come at once, and have some one send Dr. Maher?" "This is Mr Tennell, sir. I'm in the wireless office. Can

"What's the matter,?" demanded the Captain gruffly "I can't very well tell you over the 'phone, sir," came the response, "but you and Dr Maher are needed immediately "

With a slightly puzzled expression on his bronzed face, Captain Deihl turned to Dr Maher, the ship's surgeon, who had been his opponent in the pinochle game and now sat staring idly out of the window

"Tennell wants both of us down in the wireless office at once," the Captain explained "He won't say what's the matter "

"Wants me?" inquired Dr Maher "Somebody hurt?"

"I don't know Come along"

Captain Deihl led the way along the hurricane deck, down to the main deck, and along the narrow passage to the wireless office The door was still locked rapped sharply, impatiently

"Who's there?" came from inside "Captain Deihl Open the door!"

The key turned in the lock, and First Officer Tennell's white face-white even beneath the deep tan-appeared

"What's the matter, Mr Tennell?" demanded the Captain brusquely

"Please step inside, sir," and the first officer opened the door

"There's what's the matter!"

With a gesture the first officer indicated the corner of the cabin where the wireless operator's desk stood Sitting before it, as if he had dropped back utterly exhausted, was the operator Charles Ingraham His head had fallen forward on his breast, and the arms hung straight down, flabbily His back was toward them, and against the white of his shirt, just beneath the left

nke that."

arm, a heavy handled knife showed. A thin line of scarlet

dyed the shirt just below the knife handle, Captain Deihl stood stockstill for one instant, then turning suddenly closed and locked the door behind him.

Dr. Maher took two steps forward, wrested the knife from the wound with a slight effort, flung it on the floor, then dropped on his knees beside the chair.

"What is all this, Mr. Tennell?" demanded Captain

Delhi at last. "I don't know, su," was the reply. "I found him

Dr. Maher rose after a moment, with a hopeless shake of his head, and minutely examined the wound It was a clean cut incision, the knife had been driven in and allowed to remain. The blade had passed between the ribs and had reached the heart. Dr. Maher noted these things, then stooped and picked up the knife. It was a long, heavy, broad bladed, dangerous looking weapon. After satisfying himself, the surgeon passed it to Captain

"It was murder," he said tersely. "He could not have stabbed himself in that position, You keep the knife, it may be the only clue."

"Murder!" the Captain repeated involuntarily." How

"Perhaps ten minutes—certainly not more than twenty," was the surgeon's reply. "The body is still warm, and the blood flows"

"Murder!" repeated Captain Deihl "Who could have killed him? What could have been the motive?" He stood staring at the kinle silently for a time, then lifted two keen, inquisitive eyes to those of his first officer. Dr. Maher too was staring straight into Tennell's face,

and slowly, under the sharp scrutiny, the blood mounted again to the tanned cheeks

"What are your orders, sir?" inquired the first officer

steadily

"How long were you in this room, Tennell, before you

called me?" asked Captain Deihl

"Two or three minutes," was the reply "I was in my cabin forward, preparing the dispatches which were to go ashore, according to your order, sir The wireless was going then, for I could hear it I noticed after a time that it stopped, so, having completed my dispatches, I brought them here directly I found Mr Ingraham just as you see him"

"H'm!" mused the Captain He was still staring thoughtfully into the other's face "Was the door

locked?"

"No, sir It was closed"

"And this knife, Mr Tennell?" The Captain examined it again and then passed it to his first officer "Do you know it? Have you ever seen it before?"

Without any apparent reason the first officer's face whitened again and he dropped down on the bench, with hands gripping each other fiercely Dr. Maher was staring at him, Captain Deihl seemed surprised.

"You know whose knife it is then?" asked the Cap-

tain finally

"Yes," and the first officer's head dropped forward "It's mine!"

There was a long dead silence The hands of the first officer were working nervously, with heavy fingers threading in and out. Dr Maher turned away suddenly and idly fingered some papers on the operator's desk.

you kill him, Tennell ?" he asked. Captain Deihl's heavy face grew set and stern. "Dig 7L

"No!" Tennell burst out. "No!"

" But it is your knife?"

the first officer, and he rose. "It was given to me by "It would be useless for me to deny it, sir," replied

one who should find it and return it to me." I posted a notice in the fo'c'sle offering a reward to anyand last night—I shall ask you to corroborate this, sir he could identify it instantly. I lost the knife yesterday, Mr. Forbes, the second officer, only a few weeks ago, and

days ago ? " Ingraham had some—some serious disagreement a few it true, Mr. Tennell," he demanded, "that you and Dr. Maher turned suddenly upon them. "And isn't

to curtail. There was a disagreement, yes." prestries which the discipline of this ship compelled me us, and on other ships he had been allowed certain discipline. This was Mr. Ingraham's second trip with yes," he replied steadily. "It was a matter of ship's Again the first officer's face blanched. "That is true,

to the desk. Dr. Maher nodded as if satisfied, and turned again

to man!" you ever in your life told me the truth, tell it now-man make it look black for you. Now, Harry Tennell, if sud then admit things which—which you must confess years. Now tell me why you call me here, show me this, "I have known you and believed in you for fourteen "I want to believe you, Tennell," he admitted at last. his first officer for a time, and then cleared his throat. Captain Deihl stood staring straight into the eyes of

The first officer read the friendliness behind the stern,

commanding voice, and there was a grateful softening of the glaring eyes "Man to man, John Deihl, I'll : tell you the truth, but it's hard to believe, and I doubt if you will understand it," he said slowly, deliberately "I did have a row with this man," and he indicated the crumpled figure in the chair,-" a nasty row in the hearing of half a dozen of the crew That was several days ago To-day I came here in the course of my duties, and found him like this I recognized the knife instantly as mine-the one I had lost. I am not a coward, John Deihl,-no man knows that better than you do,-yet for a moment I was overcome by a feeling of terror Here was the fact of the quarrel, my knife as the weapon of death, myself alone in the cabin with this man while the body was still warm It all flashed across my mind in an instant-I was frightened at the utter helplessness of my position No one had seen me enter this cabin, I knew, and the thought came that perhaps I might leave it without being seen, keep my mouth shut, and allow some one else to discover this " The first officer paused and sought vainly to read the expressions on the faces of the two men before him

"I even went so far as to draw the knife out of the wound, with the purpose of flinging it overboard," the first officer continued slowly, "then my senses came back. I knew my duty again. I replaced the knife in the wound, precisely as I found it, and called you. You are a severe man, but you're a just man, John Deihl, and you know I am not the man to stab another in the back, you know, John Deihl, that fourteen years with me as shipmate and fellow officer has never shown you a weak spot in my courage, you know me, John Deihl and I know you." The voice dropped suddenly "That's all"

Captain Deshl had stood motionless with stern, set face and keen, cold eyes searching those of the first officer At last he reached out a hand and gripped the one that met it. "I believe you, Harry," he said quietly

met it. I beneve you, rraity, he said quietry

Dr. Maher furned quickly and regarded the two with
then," he said unpleasantly, "that this is to be a matter
of friendship rather than of evidence?"

The first officer's face flamed, and he took one step toward the surgeon, with clenched fists.
"Go to your cabin, Mr Tennell!" ordered Captain

"Go to your cabin, Mr Tennell!" ordered Captain from me!"

The first officer paused, involuntarily straightened himself, and lifted one hand to his cap "Yes, sir," he said "And you are not to mention this matter to anyone," Captain Deihl directed "I understand, sir."

But news travels quickly sboard ship, so that within less than an hour the tragedy had become a matter of fortably in a deck chair, when a casual acquaintance, informed her of it. She struggled to her feet, snd staring at him dully for an instant with whitening face, swayed, and fell prone to the deck. It was fully half an hour before the stewardess and her assistants saw the eyelids flutter and open weakly, and at the end of an other half hour the stewardess sought out the Captain. Sine found him at his desk in his cabin, with Second Officer Forbes.

"We must get those despatches off, Mr Forbes," the Captain was saying. "Have the ship canvassed, first

and second cabin, steerage and crew, to see if by any chance there is a man, woman, or child aboard who can operate the wireless Attend to it at once!"

Forbes touched his cap and went out The Captain

turned to the stewardess inquiringly

"Please, sır, Mıss Bellingdame is almost insane from the shock of the murder," the stewardess informed him "It's hard to make her keep in her state room, let alone the berth Dr Maher doesn't seem to be able to do her any good She insists on seeing the body "

"Why?" asked Captain Deihl in surprise " Was

she acquainted with Ingraham?"

"She was engaged to be married to him, sir," replied the stewardess "Poor child! I don't know what to do for her "

Captain Deihl stared at her blankly for an instant, then rose suddenly and accompanied her to Miss Bellingdame's state room She was sitting up in her berth, pallid as the sheets about her One of the stewardess's assistants sat near trying to soothe her

"Is it true, Captain?" she demanded.

Captain Deihl nodded grimly

She extended her hands convulsively and clutched his arm, then her head sank forward against it and she sobbed bitterly "Do you know who-who did it?" she asked at last

"We don't know, madam," he replied gently are doing all we can, but——" "We

"Somebody told me your first officer had been arrested," she interrupted suddenly "He is tall and dark, with a heavy moustache, isn't he?"

"Yes," replied the Captain. "Why?"

For a little while she was silent as she struggled to

regain control of her voice, and then: "May I say THE PROFESSOR ON THE CASE

to his cabin later he emerged and summoned Second Officer Forbes her assistant left them alone together. Fifteen minutes At a gesture from Captain Deahl the stewarders and "I must!" she msisted. "Do you know—do you suspect——?" he began something to you in private, Captain ?"

". Yes, sir ", take any chances with him." guard beside him day and night until we land Don't "You had better put him in irons, and keep an armed and formally place him under arrest," he ordered shortly. "Mr Forbes, proceed at once to Mr Tennell's cabin

afternoon," the Captain mused, "Very well, Mr "We should land then about five o'clock to-morrow "A little better than seventeen knots, sir." " What is our speed?" or even a telegraph operator " he reported. "There is not a wireless operator aboard, the cabin again "We have canvassed the ship, sir," Two hours later Second Officer Forbes appeared in

forth across the bridge. Above the stars glittered coldly Captain Deihl paced slowly, thoughtfully, back and Forbes; we shall have to do without an operator."

last stroke was borne away on the wind Captain Deihl Two bells sounded—one o'clock As the echo of the with unseeing eyes and grimly set lips Nature gave grudgingly. The Captain gazed upon it all was unbroken by a single glint of light save that which Uranus in green, oily swells. The encompassing night down upon the silent, sinister sea as it slid past the

suddenly became conscious of the sharp, venomous hiss

of the wireless. The wireless! He paused incredulously, and glanced aloft. A spark sputtered at the top of the foremast, winked and flashed and spat viciously in the rhythmic dots and dashes of the Continental code. The wireless was working! Some one was sending! The Captain knew that no sound accompanied the receipt of a message, even with the automatic attachment, therefore that sputtering and hissing was some one sending, and if that was true it meant—

He ran down the ladder to the hurricane deck, and disappeared down a companion-way to the deck below

CHYPTER IX

THE MIDNICHT MESSAGE

PROFESSOR AUGUSTUS S F. X VAN DUSEN listened to Captain Deihl's recital of the circumstances surrounding the murder of Charles Ingraham, with a slight frown of annoyance on his wisened face. As he talked the man of the sea turned from time to time to Dr Maher for confirmation of the facts. Each time such corroboration was given with a short nod of the head

"Mow, there are a few other little things," Captain "Mow, there are a few other little things," Captain "Mow, there are a few other little things," Captain Dr Maher here. For instance, I personally went to the fo'c'sle to see if Tennell had posted a notice there offering a reward for the knife on the night before the murder, and found that statement correct. Here is the notice and found that statement correct. Here is the notice which the murder was committed."

The Thinking Machine accepted a sheet of paper which The Thinking Machine accepted a sheet of paper which Deihl offered, glanced at it, then handed it back.

"I don't know if Dr. Maher even knows just why I ordered Tennell under arrest," continued the Captain "Miss Bellingdame's story decided me She was going to the wireless office to send a message, when she saw a man—it was First Officer Tennell—thrust his head out the door and look around, as if he contemplated escape.

She thought it rather curious that he should slam the door when he saw her, but it meant nothing particularly Then, at a time when we now know Ingraham was dead, she carried on a conversation with some one in the wireless office, through the locked door Tennell had not mentioned this to me, and coming as it did it seemed so conclusive that I ordered his arrest."

"It was conclusive from the first," remarked Dr

"And then hearing the wireless that night after I had taken pains to assure myself that there was no operator aboard!" Captain Deihl resumed, and his face reflected his bewilderment. "I went straight from the bridge to the wireless office, to find it silent, dark, and the door locked. I called. There was no answer, and I smashed in the door. There was no sign of anyone having been in there—everything was precisely as we left it when the body was removed."

For a long time there was silence Dr Maher drummed impatiently on the arm of his chair, The Thinking Machine sat motionless, his slender figure all but engulfed in the huge chair

"As I understand it," remarked The Thinking Machine at last, "Tennell is now in the hands of the police, and

the body 15----"

"Ashore awaiting burial," the Captain supplied. "Miss Bellingdame has asked permission of the authorities to take charge of it"

Dr Maher rose and went to the window, where he stood looking out The Thinking Machine lowered his squint eyes and stared steadily at the ship's surgeon

"The case against the first officer seems perfectly

my reason won't let me believe it. Why, man, I've are compelling me to believe that he is a murderer, and know Harry Tennell," he said bluntly " Circumstances embarrassed, and he cleared his throat "Because I Captain Deihl's bronzed face reddened as if he was do you come to me?" clear thus far," said the scientist after a pause. "Why 28

Tennell didn't kill him " ing, but I would gamble my right arm that Harry "No," replied Captain Deihl "I can imagine nothyou imagine any other motive than the apparent one?" was squinting at the back of Dr Maher's head " Can nell, Captain?" inquired The Thinking Machine He "Have you any cause to suspect anyone but Tenthan to your head," interposed Dr Maher cynically "All of which is rather to the credit of your heart

the bare suggestion of his innocence, and I—I came here ``believe what I have to believe! The police are deaf to known him for years, and I simply can't make myself

wound was made by a kmile Was it clean cut?" "Dr Maher," inquired the scientist at last, "the gether and eyes turned steadily upward tive scientist, who lay back with finger tips pressed tovainly into the drawn, inscrutable face of the diminu-Again there was silence The Captain was gazing

"Yes It required considerable strength " Was the kmfe driven to the hilt \circ "

"Therefore is a point for Tennell, as it shows the "That's correct," was the short answer trickle of blood from the wound before you pulled the "And I believe Captain Deihl says there was a thin

knife had been withdrawn and replaced. And so the real problem is to find what message Ingraham was sending when he was murdered," said the scientist quietly "Neither of you happens to know?"

"The same thought came to me while Captain Deihl was talking to Tennell," said Dr Maher quickly "It was shortly after seven bells in the afternoon—that is, half-past three o'clock—when the crime was discovered. Now, the last message to be sent, according to the time check on it, was sent shortly after twelve Yet, if we believe Tennell, the operator was sending a message just before he was struck down, or possibly at that moment. Well, there was nothing to show for that message—no scrap of paper—nothing";

The Thinking Machine glanced at Dr Maher as if surprised. "Therefore the message Ingraham was sending," he put in, "was either stolen or was being composed as he sent it. Is that clear?"

There was a pause Captain Deihl nodded, and Dr

Maher began drumming on the window sill

"That being true," the scientist went on incisively, "the next step is to learn who aboard the Uranus could read the code—the Continental code too, mind you, not the Morse—as a message was being sent — Is that clear?"

"Yes, go on," said Captain Deihl

"When we find the person who could read the Continental code, we also find the person who in all probability was operating the wireless at one o'clock the night of the murder. Is that clear?"

"Yes, yes"

"And when we find the person who operated the wireless, logic shows us incontrovertibly, that we have either the murderer of Ingraham, or some one who was

not sometimes but all the time." know that as certainly as that two and two make four, but for divers reasons preferred to remain unknown. We fore we know that the operator—an operator—was aboard in a search for an operator None came forward, therein the plot. Remember, the ship had been canvassed 48

Captain Deihl considered the matter carefully as he your opinion?" the arrangement of the place better than I What 1s ph s knife thrust through an open window? You know derer mside the cabin with Ingraham, or was he killed as to the exact method of the murder? Was the mur-Deihl, and you, Dr Maher, have you formed any opinion was gone for perhaps ten minutes "Now, Captain silent for a moment, then rose and left the room He at night," The Thinking Machine resumed He was from the ship both by the operator and by the unknown perhaps a tedious one, to find what message was sent " With these facts in hand it is a simple matter, albeit with a new interest evident in every line of his face Dr. Maher turned and dropped back into his chair,

" I agree with you perfectly," was the prompt response What do you think, Maher ? " Yes, it was within easy reach, and I'm inclined to bewas open, as it was warm, and he was in his shirt sleeves His left side was toward the window, and the window been stabbed by some one outside, through the window. he said slowly at last, " it seems to me that he must have found it. "Since you have brought up the question," sought to recall every minute detail of the cabin as he

ward thrust, where if a person had been in the room the dropped inside the state room, and there was an up-"The angle of the knife indicates that an arm had been

natural angle would have been downward, unless that person had been lying on the floor "

"All of which being true, is a point in favour of Tennell," said The Thinking Machine curtly "You found him inside the cabin with the body, and we must suppose from your own statement, Dr Maher, that he would have had to lie down to inflict the wound I may say that the strongest point in his favour is the fact that he did not throw away the knife He knew it to be his, had opportunity to get rid of it, but didn't, therefore—"He shrugged his shoulders and was silent for a moment

"All things depend upon the point of view, gentlemen," he continued after a time "There are half a dozen casual facts, several of which I have specified, which incline me to a belief in Tennell's innocence, and only two against him, these being the motive and the knife Strong, you say? Yes, but the knife is turned in his favour. Now let us assume Tennell's innocence for a moment, and build our hypothesis on facts that we know. It is always possible to reconstruct a happening by the logic of its units. Let us see this rule applied to this case.

"We are reasonably certain that whatever message Ingraham was sending just before, or at the moment of his death, was not a written message. I have your word, Dr. Maher, that there was not a trace of any message after the one about noon. Shall we suppose that there was a written message and it was stolen from his desk by the hand that slew? Hardly Let us take the simple view first. He was sending a message somewhere as he composed it. Now, anyone aboard that ship who knew the Contractal code could have read that message, because the wireless has that fault. That being true, we

shall admit that somebody did read it, or was reading

"Right here we come to what may prove to be the solution. It was necessary for the person who read the message as it went to stop it, and perhaps to silence the man who sent it, even at the cost of a life. Therefore, the importance of the message to the person who read it was struck and death. A blow was struck, the message was stopped. But the knife? Tennell says he lost it, anysopped, But the knife? Tennell says he lost it, anysopped and death.

one might have found it,

"The message is stopped, the murderer feels is self necessity which the murderer feels is self protection. How? Can a message be sent which will counteract the one which was stopped by the murder? If this can be done, it is vitally necessary. Some one then—the murderer—takes another tremendous chance, enters the office, and is sending another message, poschiers the office, and is sending another message, when eatly a continuation of the interrupted message, when captain Deihl becomes aware of it. He goes to investigate, and the probabilities are that the unknown operator escapes by way of the window and regains a state toom unobserved.

Toom unobserved

"That's clear, 1sn't it? Well, now, what possible motive might he back of it all? Well, one for instance Suppose the English police, after the Uranus sailed, had reason to suspect there was some person aboard who was wanted there, they could have reached the Uranus by wireless. But no such report reached the Uranus, you mean. The operator might have received such a report, but for reasons of his own kept it to himself no you see?

"Let us conjecture a bit What if a big reward was

offered for some person aboard the Uranus, and a statement of the fact reached it by wireless? What if the operator was that peculiar type of man who would hold that information to himself on the chance of discovering and delivering over that person who was wanted to the police of this country, thus holding the reward all to himself? Do you see the possibilities? Now, what if that person who was wanted was an operator as well, and able to read the unwritten message the regular operator was sending,—a message, understand, which meant capture and punishment,—is that a motive for murder?

"This is all partly conjecture, partly fact—merely a discussion of the possibilities. Still, our murderer is unknown. As I have said, the capture of the guilty person may be simple, but it may be tedious. When I

hear from-"

There was a sharp ringing of the telephone bell in the next room The scientist rose abruptly and went out After a few minutes he returned.

"You allowed Miss Bellingdame to leave the Uranus on a motor boat, I understand, before you docked?"

he inquired placidly

"Yes," replied Captain Deihl "She requested it, and Dr Maher suggested that it would perhaps be best as she was very ill and weak from the shock following the tragedy"

"I shall be able to put my conjectures to a test at once then," said The Thinking Machine as he put on his hat. "First, I must ask some questions of Miss Bellingdame, however Suppose you gentlemen wait for me at police headquarters? I shall be there in an hour or so"

The Thinking Machine and Hutchinson Hatch, re-

porter, were sitting together in a small reception room adjoining the telegraph office in the Hotel Teutonic. Opposite them was Miss Bellingdame, still pale and weary looking, with traces of grief on her face.

"Our close relationship with Mr. Ingraham prompted us to call upon you and offer our condolences at this time," The Thinking Machine was saying glibly; "and at the same time to ask if we could be of any service to act the same time to ask if we could be of any service to

"I appreciate the feeling, but hardly think there is "unless, indeed, it is to relieve me of the painful task of taking charge of the body, and—".

"Just what I was going to suggest," interrupted the little scientist. "With your permission I shall send a relegram at once to friends at home and tell them to make the preparations. If you will excuse me?" and he rose.

Miss Bellingdame nodded, and he went to the small window of the telegraph office, wrote a despatch, and handed it in After a moment he resumed his seat.

"It is singular that Charlie should never have mentioned your name in his letters home," continued The Thinking Machine as he dropped back into his chair,

"Well, our acquaintance was rather brief," replied suggestion came directly over with him. Now that everything has happened, I hardly know just what I shall do next."

The telegraph sounder clicked sharply, and distinctly "And when were you to have been married?" interrupted the scientist gently.

Miss Bellingdame was listening intently. "Married?"

"Oh, yes, we were to have been she repeated absently married, to be sure "

Hatch strove vainly to read the expression which was creeping into her face. She was leaning forward, gripping the arms of the chair in which she sat with wide, staring, frightened eyes, and every instant her face grew whiter Suddenly she rose

"Really you must pardon me," she gasped hurriedly "Iam ปไ้เ

She turned quickly and almost ran out of the room The Thinking Machine walked out and into the arms of Detective Mallory in the lobby

"Are your men placed?" demanded the scientist

abruptly

"Yes," was the complacent answer "Did it work?" "It worked," replied The Thinking Machine enig-matically "Come on Let us go to headquarters"

The Thinking Machine's conjecture was faulty only in one point, and that was his surmise that the message which had been sent at night from the Uranus after the murder had been to counteract the message which Ingraham was sending when he was killed. Instead, Miss Bellingdame, herself an operator, had picked up the wireless station ashore and ordered a motor boat out to meet her and take her off Every other statement was correct as he had stated it.

"And simple," he told Hatch and Captain Deihl "Mr Hatch, to whom I telephoned while you, Captain, were with me, was able to find the interrupted message at sea, in fact, it had been relayed in to the station here for information It stated that Miss Florence Hogarth, wanted for poisoning in England, and for whom there was a reward of one thousand pounds, was aboard the

Uranus as Miss Bellingdame, and that instead of having dark hair her hair was straw blond, as the result of a little peroxide. You see, therefore, the logic of the units was correct. It is always so. She went to pieces when she read the sounder at the hotel, which was a prestranged affair in the hands of a Continental operator. The message I sent was a dummy "

Subsequent developments proved that instead of being engaged to the murdered operator, Miss Belling-came, or Miss Hogarth, had never seen him until she came aboard the Uranus It never appeared just how Ingraham had discovered her identity.

CHAPTER X

THE ROSWELL TIARA

HAD it not been for the personal interest of a fellow savant in the case it is hardly likely that the problem of the Rosewell tiara would ever have come to the attention of The Thinking Machine. And had the problem not come to his attention it would inevitably have gone to the police. Then there would have been a scandal in high places, a disrupted home and everlasting unhappiness to at least four persons. Perhaps it was an inkling of this latter possibility that led The Thinking Machine—to take initial steps in the solution of a mystery which seemed to have only an obvious ending

When he was first approached in the matter The Thinking Machine was in his small laboratory from which had gone forth truths that shocked and partially readjusted at least three of the exact sciences. His enormous head, with its long yellow hair, bobbed up and down over a little world of chemical apparatus, and the narrow squint eyes peered with disagreeable satisfaction at a blue flame which spouted from a brazier. Martha, an aged woman who was the scientist's household staff, entered. She was not tall yet she towered commandingly above the slight figure of her eminent master Professor Van Dusen turned to her impatiently

was about to state, I arranged for this because, as I ways secured at might in both rooms.

"My maid and my daughter's maid both sleep in the was about to state, I keep about half a million dollars worth of jewels in my bed room locked in a small yault built into the wall. This little vault opens with a combination bination. Not one person knows that combination except myself. It so happens that the man who set it is dead

For no apparent reason Mrs Roswell suddenly burst into tears. The two men were silent and The Thinking Machine looked at her uneasily. He was not accustomed women anyway, and women who wept were hopelessly beyond him.

" [Vell, well, what happened?" he asked brusquely

"It was perhaps five o'clock when I fell asleep," Mrs Roswell continued after a moment "About twenty minutes later I was aroused by a scream of Jeanette, Jeanette, Jeanette' Instantly I was fully awake The screaming was that of a cockatoo which I have kept in my room for many years It was in its usual place on a perch near the window, and seemed greatly disturbed.

"My first impression was that Jeanette had been in the room I went into her room and even shook her gently She was asleep so far as I could ascertain I returned to my own room and then was amazed to see the vault door standing open All the jewels and papers from the vault were scattered over the floor My first thought was of burglars who had been frightened away by the cockatoo I tried every door and every window in both Jeanette's room and mine Everything was securely fastened.

"When I picked up the tiara I found that a diamond was missing. It had evidently been torn out of the setting. I searched for it on the floor and inside the vault. I found nothing. Then of course I could only associate its disappearance with some act of—of my step-daughter's. I don't believe the cockatoo would have called her name if she had not been in my room. Certainly the bird could not have opened the vault. Therefore I—I—"

There was a fresh burst of tears and for a long time no one spoke

"Do you burn a night lamp?" asked The Thinking Machine finally

"Yes," replied Mrs. Roswell

"Did the bird ever disturb you at any time previous to last night—that is I mean at night?"

Machine knew him well; the name of the woman was a name to juggle with in astronomy—The Thinking Richard Watson Roswell Charles Wingate Field was name Charles Wingate Field, and on the other Mrs. Martha handed him two cards. On one was the " Well? Well?" he demanded shortly

"The gentleman said it was very important," Martha strange to him

explained, " and the poor lady was crying."

"What about?," snapped the scientist.

"Lord, sir, I didn't ask her," exclaimed Martha

"I,]] pe tpete in a moment "

scientist. The other person was Mr Field. the keen blue eyes and the long slender hands of the she caught herself staring curiously at the pallid face, she had been weeping but now her tears were dried and and with a distinct, matured beauty Her eyes showed of forty-five years, richly gowned, splendid of figure there arose to meet him One was a woman apparently garded as a sort of useless glory, and the two persons at the door of the little reception room, which he re-A few minutes later The Thinking Machine appeared

ioned chair, and looked from one to the other with a them to seats He himself dropped into a large cush-There was an introduction and the scientist motioned

thing one cares to take to the police If you-" a problem, an abstruse problem, and it isn't the kind of I have brought her to you because here is a mystery, you have done, Van Dusen," began Mr. Field. " Now "I have been telling Mrs Roswell some of the things question in his eyes.

the scientist. He seemed to withdraw even further into " If Mrs Roswell will tell me about it?" interrupted

the big chair With head tilted back, eyes squinting steadily upward and white fingers pressed tip to tip he waited

"Briefly," said Mrs Roswell, "it has to do with the disappearance of a single small gem from a diamond tiara which I had locked in a vault—a vault of which no living person knew the combination except myself Because of family reasons I could not go to the police, and—"

"Please begin at the beginning," requested The Thinking Machine "Remember I know nothing whatever of you or your circumstances"

It was not unnatural that Mrs Roswell should be surprised. Her social reign was supreme, her name was constantly to be seen in the newspapers, her entertainments were gorgeous, her social doings on an elaborate scale. She glanced at Mr Field inquiringly, and he nodded

"My first husband was Sidney Grantham, an Englishman," she explained. "Seven years ago he left me a widow with one child—a son Arthur—now twenty-two years old and just out of Harvard. Mr Grantham died intestate and his whole fortune together with the family jewels, come to me and my son. The tiara was among these jewels

"A year ago I was married to Mr Roswell He, too, is a man of wealth, with one daughter, Jeanette, now nineteen years old. We live on Commonwealth Avenue and while there are many servants I know it is impossible—"

"Nothing is impossible, Madam," interposed The Thinking Machine positively "Don't say that please It annoys me exceedingly"

squinted at her oddly, then turned his eyes toward the ceiling again

"I understand," he said "You feared for her sanity And she may have the sleep-walking habit without your knowledge?"

"Yes, she may have," faltered Mrs Roswell

"And now your son Tell me something about him He has an allowance, I suppose? Is he inclined to be studious or other wise? Has he any love affair?"

Again Mrs Roswell flushed Her entire manner resented this connection of her son's name with the

affair She looked inquiringly at Mr Field.

"I don't see—" Mr Field began, remonstratingly

"My son could have nothing-" Mrs Roswell interrupted

"Madam, you have presented an abstract problem," broke in The Thinking Machine impatiently "I presumed you wanted a solution Of course, if you do not-" and he made as if to arise

"Please pardon me," said Mrs Roswell quickly, almost tearfully "My son has an allowance of ten thousand a year, my daughter has the same My son is inclined to be studious along political lines, while my daughter is interested in charity. He has no love affair except—except a deep attachment for his stepsister It is rather unfortunate-"

"I know, I know," interrupted the scientist again "Naturally you object to any affection in that direction because of a fear for the girl's mental condition. May I ask if there is any further prejudice on your part to the girl?"

"Not the slightest," said Mrs Roswell quickly "I am deeply attached to her It is only a fear for my

son's happiness."

" I have tried to intimate it to him without saying it matter?" " I presume your son understands your attitude in the

ever handled or looked into the book where the com-" Of your knowledge has either your son or the girl serious her condition has been, and is for that matter." openly," she explained "I don't think he knows how

" Not that I know of, or ever heard of " bination is written?"

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" Or any of your servants?"

studied the gorgeous ornament in silence used to pry out the stone The Thinking Machine which had held it were almost straight from the force stones One was missing from its setting The prongs at its apex, and radiating from this were strings of smaller A single splendid diamond of four or five carats blazed wonderfully heavy with the dead weight of pure gold art, intricate and marvellously delicate in conception yet a glittering, glistening thing, a triumph of the Jeweller's Mrs Roswell produced it from her hand bag. It was "Does it happen that you have this trara with you?"

A B C rules of logic—and logic is inevitable—indicates and step-daughter Given the same circumstances, the Take no one into your confidence, least of all your son fore you must watch for this thief-yourself in person want it to become known outside your own family, theremy active interference," he said at last. "You do not ". It is possible for you to clear up this matter without

"If you see how this second stone disappears," conleaned forward with eager interest. Mrs Roswell was frankly startled, and Mr. Field that another may disappear." tinued The Thinking Machine musingly, without heeding in the slightest the effect of his words on the others, "you will know what became of the first and will be able to recover both"

"If another attempt is to be made," exclaimed Mrs. Roswell apprehensively, "would it not be better to send the jewels to a safe deposit? Would I not be in danger myself?"

"It is perfectly possible that if the jewels were removed the vault would be opened just the same," said The Thinking Machine quietly, enigmatically while his visitors stared. "Leave the jewels where they are You may be assured that you are in no personal danger whatever. If you learn what you seek you need not communicate with me again. If you do not I will personally investigate the matter. On no condition whatever interrupt or attempt to prevent anything that may happen."

Mr Field arose, the interview seemed to be at an

end. He had one last question.

"Have you any theory of what actually happened?" he asked. "How was the jewel taken?"

"If I told you you wouldn't believe it," said The

Thinking Machine, curtly "Good day"

It was on the third day following that Mrs Roswell hurriedly summoned The Thinking Machine to her home

When he arrived she was deeply agitated.

"Another of the small stones has been stolen from the tiara," she told him hurriedly "The circumstances were identical with those of the first theft, even to the screaming of the cockatoo I watched as you suggested, have been watching each night but last night was so weary that I fell asleep The cockatoo awoke me. Why would Jeanette—"

OOI

"Let me see the apartments," suggested the scientist, Thus he was ushered into the room which was the centre of the mystery Again he examined the tiars, then studied the door of the vault Afterwards he casuly picked up and verified the record of the combination, locked and unlocked the vault twice after which he examined the fastenings of the door and the windows smined the fastenings of the door and the windows cockatoo on its perch

The bird was a grant of its species, pure white, with a yellow crest which drooped in exaggerated melancholy. The Thinking Machine moved quickly would have torn off his spectacles

A door from another room opened and a girl—Jeanette—entered She was tall, slender and exquisitely proportioned with a great cloud of ruddy gold hair Her face was was in her eyes She was startled at sight of a stranger. "I beg your pardon," she said "'I didn't know—" and started to retire

Professor Van Dusen acknowledged an introduction

Professor Van Dusen acknowledged an introduction to her by a glance and a nod then furned quickly and with creat upraised. Mrs Roswell's attention, too, was attracted by the angry attritude of her pet. She grasped attracted by the angry attritude of her pet. She grasped attracted by the angry attritude of her pet. She grasped attracted by the angry attritude of her pet. She grasped in a strange of the production.

"]eanette, Jeanette, Jeanette," screamed the cock-

Jeanette dropped wearily into a chair, heeding neither of the cockatoo

"You don't sleep well, Miss Roswell?" asked The Thinking Machine

"Oh, yes," the girl replied. "I seem to sleep enough, but I am always very tired And I dream constantly, nearly always my dreams are of the cockatoo I imagine he calls my name"

Mrs Roswell looked quickly at Professor Van Dusen

He crossed to the girl and examined her pulse

"Do you read much?" he asked "Did you ever read this?" and he held up the copy of "Les Misérables"

"I don't read French well enough," she replied. "I have read it in English"

The conversation was desultory for a time and finally The Thinking Machine arose. In the drawing room down stairs he gave Mrs. Roswell some instructions which amazed her exceedingly, and went his way

Jeanette retired about eleven o'clock that night and in an hour was sleeping soundly. But Mrs. Roswell was up when the clock struck one. She had previously bolted the doors of the two rooms and fastened the windows. Now she arose from her seat, picked up a small jar from her table, and crept cautiously, even stealthily to the bed whereon Jeanette lay, pale almost as the sheets. The girl's hands were outstretched in an attitude of utter exhaustion. Mrs. Roswell bent low over them a moment, then stole back to her own room Half an hour later she was asleep.

CHAPTER XI

Y EOOF OF GOOD INTENTION

Early next morning Mrs Roswell 'phoned to The Thinking Machine, and they talked for fifteen minutes She was apparently explaining something and the scientist gave crisp, monosyllabic answers. When the wife was disconnected he called up two other persons on the 'phone. One of them was Dr. Henderson, noted alienist, the other was Dr. Forrester, a nerve specialist of international repute. To both he said.

you have ever seen." I want to show you the most extraordinary thing

The dim light of the night lamp cast strange, unex-

pected shadows, half revealing yet half hiding, the various objects in Mrs Roswell's room. The bed made conspicuous point was the bright silver dial of the jewel vault. From the utter darkness of Jeanette Roswell's saleep, the cockatoo was gone from his perch. Outside asleep, the faint night-throb of a city at rest. In the distance a clock boomed four times. Finally the stillness was broken by a test.

Finally the stillness was broken by a faint creaking, the tread of a light foot and Jeanette, robed mystically

in white, appeared in the door of her room. Her eyes were wide open, staring, her face was chalk-like, her hair tumbled in confusion about her head and here and there was flecked with the glint of the night-light

The girl paused and from somewhere in the shadows came a quick gasp, instantly stifled. Then, unhearing, she moved slowly but without hesitation across the room to a table whereon lay several books. She stooped over this and when she straightened up again she held "Les Misérables" in her hand. Several times the leaves fluttered through her fingers, and thrice she held the book close to her eyes in the uncertain light, then nodded as if satisfied and carefully replaced it as she had found it.

From the table she went straight toward the silver dial which gleamed a reflection of light. As she went another figure detached itself noiselessly from the shadows and crept toward her from behind. As the girl leaned forward to place her hand on the dial a steady ray of light from an electric bulb struck her full in the face. She did not flinch nor by the slightest sign show that she was aware of it. From her face the light travelled to each of her hands in turn.

The dial whirled in her fingers several times and then stopped with a click, the bolt snapped and the vault door opened Conspicuously in front lay the tiara glittering mockingly. Again from the shadows there came a quick gasp as the girl lifted the regal toy and tumbled it on the floor. Again the gasp was stifled.

With quick moving, nervous hands she dragged the jewels out permitting them to fall. She seemed to be seeking something else, seeking vainly, apparently, for after awhile she rose with a sigh, staring into the vault hopelessly. She stood thus for a dozen heart beats,

heard—low yet singularly clear of enunciation. then the low, guarded voice of the second figure was tor

". Dr. Forrester, she needs you now" wildly, piercingly, gazed a moment then sank down she stared into the face before her. She screamed eyes closed suddenly to open again in abject terror as hand on her arm. She started a little, staggered, her in her glassy eyes, and the second figure laid a detaining re-enter her room. As she did so the light again flashed There was a pause and she turned suddenly as if to "The letters," she replied dreamily yet distinctly. " What is it you seek?"

It was the calm, unexcited, impersonal voice of The

those diamonds." "It's a he!" he said fiercely. "She didn't steal danger lay in the boyrsh eyes. Grantham turned on him savagely, impetuously and outy shock " "It's all right," said The Thinking Machine. "It's lessly stroking her hair. imply into a chair; her husband stood beside her helppanned, horror-stricken face, Mrs Roswell dropped the senseless body. Grantham, too, rushed to her with Roswell and Arthur Grantham, came forward and lifted and Henderson, suddenly revealed with Mr. and Mrs. and the room was flooded with light. Drs Forrester Thinking Machine. He touched a button in the wall

coldly. "How do you know?" asked The Thinking Machine

man blurted. "If I had known there was to be any such trick as this I should never have consented to it " "Because—because I took them myself," the young

His mother stared up at him in open eyed wonder "How did you remove the jewels from the setting?" asked. The Thinking Machine, still quietly

"I-I did it with my fingers"

"Take out one of these for me," and The Thinking Machine offered him the tiara.

Grantham snatched it from his hand and tugged at it frantically while the others stared, but each jewel remained in its setting. Finally he sank down on the bed beside the still figure of the girl he loved. His face was crimson

"Your intentions are good, but you're a fool," commented The Thinking Machine tartly "I know you did not take the jewels—you have proven it yourself—and I may add that Miss Roswell did not take them"

The stupefied look on Grantham's face was reflected in those of his mother and step-father. Drs Forrester and Henderson were busy with the girl heedless of the others

"Then where are the jewels?" Mrs Roswell demanded

The Thinking Machine turned and squinted at her with a slight suggestion of irritable reproach in his manner

"Safe and easily found," he replied impatiently He lifted the unconscious girl's hand and allowed his fingers to rest on her pulse for a moment, then turned to the medical men "Would you have believed that somnambulistic sub-consciousness would have taken just this form?" he asked curtly

"Not unless I had seen it," replied Dr. Henderson, frankly

"(It's a remarkable mental condition—remarkable," 901

upstairs with her maid on watch. white faced and nervous; Jeanette was sleeping quietly as the eminent scientist talked Young Grantham sat ness Yet they listened, listened with all their faculties and watched for just what had happened showed weariover the city, and the faces of those who had waited in the drawing room an hour later. Dawn was breaking found them that The Thinking Machine told downstairs It was a weirdly simple recital of the facts as he had commented Dr. Forrester.

to simplify it as a matter of fact. When I had all the eatures, which seemed to make it more difficult served with eyes upturned " The unusual, not to say strange Thinking Machine began as he lounged in a big chair ". The problem in itself was not a difficult one," The

anyone else could have entered the rooms. The barred a year. Then remember always that he no more than studious of habit, and had an allowance of ten thousand here? His mother assured me that he was quiet and not one small stone. Then what? Mr. Grantham as a possibility They would have taken everything, "In the first place burglars were instantly removed two to get four fact to a fact to get a result as one might add two and facts I had the solution in the main It was adding a

of your step-daughter's There was no motive for the thus. So there was left somnambulism or a wilful act enebicion on the girl I didn't delieve you capable of to remove the jewel unless your object was to throw daughter. There would have been no motive for you "Then we had only you, Mrs. Roswell, and your stepdoors excluded the servants 'too.

destroy them." Roswell considered it your duty to hide thein—possibly in these letters is of no consequence here. You, Mrs. letter, or letters, before she said so herself What was showed that What else? Letters I knew it was a She was not after Jenels—her every act even tonight vault but in her abnormal condition she thought it was.

pleadingly. quiringly. She stared from one to the other helplessly, Both husband and son turned on Mrs Rosnell in-

interrupted The Thinking Machine "If there is a " Never mind that, it's none of our business," curtly "The letters contained—" she started to explain,

"I won't believe anything against her," burst out family skeleton, it's yours"

" Even with the practical certain knowledge that Miss Grantham passionately

the rest. I may add that Mr Grantham in attempting you Dr Forrester, and you Dr Henderson. You know This jam did appear on the book, and then I summoned would go around with strawberry jam on his hands. one who might have a purpose in opening that vault strawberry jam because it was unusual. I dare say no conclusively that Miss Roswell opened it. I chose next time the vault was found open it proved finally and was sleeping If this Jam appeared on the book the strawberry jam on her step-daughter's hands while she peared I mstructed Mrs Roswell to place a little prove it This was after the second stone had disapthe manner you saw tonight, I took one more step to sumed placidly, "and that she opened it in precisely Roswell did open the vault," The Thinking Machine re-

to take the theft upon himself merely-made a, fool of

hunself No person with bare fingers could have torn out one of the stones"

There was a long pause, and deep silence while the problem as seen by The Thinking Machine was considered in the minds of his hearers Grantham at last broke the silence

'Where are the two stones that are missing?"

"Oh yes," said The Thinking Machine easily, as if that trivial point had escaped him "Mrs Roswell will you please have the cockatoo brought in?" he asked, and then explained to the others "I had the bird removed from the room tonight for fear it would interrupt at the wrong moment"

Mrs Roswell arose and gave some instructions to a servant who was waiting outside. He went away and returned later with a startled expression on his graven face.

"The bird is dead, madam," he reported

"Dead I" repeated Mrs Roswell

"Good!" said The Thinking Machine rubbing his hands briskly together "Bring it in anyhow"

"Why, what could have killed it?" asked Mrs Roswell, bewildered.

"Indigestion," replied the scientist "Here is the thief"

He turned suddenly to the servant who had entered bearing the cockatoo in state on a silver tray

"Who? I?" gasped the astonished servant.

"No, this fellow," replied The Thinking Machine as he picked up the dead bird. "He had the opportunity, he had the pointed instrument necessary to pry out a stone—note the sharp hooked bill, and he had the strength to do it. Besides all that he confessed a fond-

IIO THE PROFESSOR ON THE CASE.

was acute indigestion.

mstrument"

ness for bright things when he tried to snatch my eyeglasses. He saw Miss Roswell drop the tiars on the
floor, its brightness fascinated him, and he screamed
stone and swallowed it. It pained him, and he screamed
'Jeanette'. This same thing happened on two occasions. Your encyclopædia will tell you that the cockatoo
consistent with two fingers unless you had a steel
possibly exercise with two fingers unless you had a steel

Later that day The Thinking Machine sent to Mrs Roswell the two missing diamonds, the glass head of a covered from the dead bird His diagnosis of the case covered from the dead bird His diagnosis of the case

CHAPTER XII

THE LOST RADIUM

ONE ounce of radium! Within his open palm Professor Dexter held practically the world's entire supply of that singular and seemingly mexhaustible force which was, and is, one of the greatest of all scientific riddles. So far as known there were only a few more grains in existence—four in the Curie laboratory in Paris, two in Berlin, two in St. Petersburg, one at Leland Stanford and one in London. All the remainder was here—here in the Yarvard laboratory, a tiny mass lumped on a small piece of steel.

Gazing at this vast concentrated power Professor Dexter was a little awed and a little appalled at the responsibility which had suddenly devolved upon him, naturally enough with this culmination of a project which he had cherished for months. Briefly this had been to gather into one cohesive whole the many particles of the precious substance scattered over the world for the purpose of elaborate experiments as to its motive power practicability. Now here it was

Its value, based on scarcity of supply, was incalculable Millions of dollars would not replace it Minute portions had come from the four quarters of the globe, in each case by special messenger, and each separate

grain had been heavily insured by Lloyd's at a staggeting premium. It was only after months of labour, backed by the influence at the great university of Yarvard in which he held the chair of physics, that Professor Dexter had been able to accomplish his purpose,

At least one famous name had been loaned to the proposed experiments, that of the distinguished scientist and logician, Professor Augustus S F X. Van Dusen—so called The Thinking Machine The interest of this master mind in the work was a triumph for Professor Dexter, who was young and comparatively unknown of last appeal in the sciences and from the moment his connection with Professor Dexter's plans was announced of last appeal in the sciences and from the moment his ing a first word and are successful to the follows all over the world had been anxiously awaiting a first word.

Naturally the task of gathering so great a quantity of the last world and the first word.

radium had not been accomplished without extensive, and sometimes sensational, newspaper comment all over the United States and Europe, therefore that news of the receipt of the final portion of the radium at Yarvard had been known in the daily press and with it a statement that Professors Van Dusen and Dexter would ment that Professors Van Dusen and Dexter would ment that pegin their experiments

The work was to be done in the immense laboratory

at Yarvard a high-ceilinged room with roof partially of glass, and with window set high in the walls far above the reach of curious eyes. Full preparations had been made,—the two men were to work together, and a niade,—the two men were to work together, and a lied into a smaller room, a sort of reception hall, which in turn connected with the main hallway of the building. Sow Prokesor Devier was alone in the laboratory,

waiting impatiently for The Thinking Machine and turning over in his mind the preliminary steps in the labour he had undertaken. Every instrument was in place, all else was put aside, for these experiments, which were either to revolutionize the motive power of the world or else demonstrate the utter uselessness of radium as a practical force

Professor Dexter's line of thought was interrupted by the appearance of Mr Bowen, one of the instructors of

the University

"A lady to see you, Professor," he said as he handed him a card "She said it was a matter of great im-

portance to you "

Professor Dexter glanced at the card as Mr Bowen turned and went out through the small room into the main hallway The name, Mme Therese du Chastaigny was wholly unfamiliar Puzzled a little and perhaps impatient too, he carefully laid the steel with its burden of radium on the long table, and started out into the reception room. Almost in the door he stumbled against something, recovered his equilibrium with an effort and brought up with an undignified jerk.

The colour mounted to his modest ears as he heard a woman laugh—a pleasant musical, throaty sort of ripple that under other circumstances would have been agreeable. Now being directed at his own discomfiture, it was irritating and the Professor's face tingled a little

as a tall woman arose and came towards him

"Please pardon me," she said contritely but there was still a flicker of a smile upon her red lips "It was my carelessness I should not have placed my suit case in the door" She lifted it easily and replaced it in that identical position "Or perhaps," she suggested, in-

quirngly, "someone else coming might stumble as you

did?"
"No," replied the Professor, and he smiled a little through his blushes "There is no one else in there"

As Mme du Chastaigny straightened up, with a rustle of skirts, to greet him Professor Dexter was somewhat surprised at her height and at the splendid lines of her from a casual glance, to be five feet nine or ten inches the was of remarkable physical power if one might judge she was of remarkable physical power if one might judge trom her poise and manner. Professor Dexter glanced at her and then at the card inquiringly

"I have a letter of introduction to you from Mme Curre of France," she explained as she produced it from a tiny chatelaine bag "Shall we go over here where the light is better?"

the light is better?"

She handed the letter to him and together they seated the outer hallway Professor Dexter pulled up a light themselves under one of the windows near the door into themselves under one of the windows near the door into the parties and opened the letter. He elanced the light sample of the light and opened the letter.

chair facing her and opened the letter. He glanced interest in his eyes
"I should not have disturbed you," Mme du Chastaigny explained placestire, "Led", "L

taigny explained pleasantly, "had I not known it was a matter of the greatest possible interest to you."
"Yes?" Professor Dexter nodded

"It's radium," she continued. "It just happens that I have in my possession practically an ounce of radium of which the world of science has never heard."

"An ounce of radium!" repeated Professor Dexter, incredulously "Why, Madame, you astonish, amaze me. An ounce of radium?"

He leaned further forward in his chair and waited expectantly while Mme du Chastaigny coughed violently The paroxysm passed after a moment

"That is my punishment for laughing," she explained, smilingly "I trust you will pardon me I have a bad

throat—and it was quick retribution "

"Yes, yes," said the other courteously, "but this other-it's most interesting Please tell me about it "

Mme du Chastaigny made herself comfortable in the

chair, cleared her throat, and began

"It's rather an unusual story," she said apologetically, "but the radium came into my possession in quite a natural manner I am English, so I speak the language, but my husband was French as my name indicates, and, he, like you, was a scientist He was little known to the world at large, however, as he was not connected with any institution His experiments were undertaken for amusement and gradually led to a complete absorption of his interest. We were not wealthy as Americans count it, but we were comfortably well off

"That much for my affairs The letter I gave you from Mme Curie will tell you the rest as to who I am Now when the discovery of radium was made by M and Mme Curie my husband began some investigations along the same line and they proved to be remarkably successful His efforts were first directed towards producing radium, with what object, I was not aware at that In the course of months he made grain after grain by some process unlike that of the Curies', and incidentally he spent practically all our little fortune Finally he had nearly an ounce"

"Most interesting!" commented Professor Dexter

" Please go on "

nounced it—that is, the practicability of radium as a it was identical with yours as the newspapers have anbed he revealed this purpose to me Strangely enough they had been and their comparative cost. On his death know the purpose of his experiments; I only knew what after a slight pause, and her voice dropped " I did not which later proved fatal," Mme, du Chastaigny resumed quarter of an ounce, my husband contracted an illness " It happened that during the production of the last

sorrow there and his own big heart prompted a ready Dexter watching her face, traced a shadow of grief and She paused and sat silent for a moment. Professor to be unintelligible to another." not perfected and unfortunately were in such shape as utilization of its power when he died but these plans were motive power. He was at work on plans looking to the

"I know of the efforts you have made and the diffito me now?" "And what," he asked, " was your purpose in coming sympathy

"Sell it?" gasped Professor Dexter. "Why, Mad-" ad bluode it you of course are to make the tests to prove it is what ounce of it I is where I can put my hands on it, and you or to the university As I said, there is nearly an have, which is of no possible use to me, might be sold to taigny continued, " and it occurred to me that what I for the experiments you have in mind," Mme. du Chasculties you have encountered in gathering enough radium

A certain hopeful light in the face of the young woman such a quantity would be forth-coming" so plentiful that the vast fortune necessary to purchase ame, it's impossible. The funds of the college are not passed and there was a quick gesture of her hands which indicated disappointment

"You speak of a vast fortune," she said at last "I could not hope, of course, to realize anything like the actual value of the substance—a million perhaps? Only a few hundred thousands? Something to convert into available funds for me the fortune which has been sunk"

There was almost an appeal in her limpid voice and Professor Dexter considered the matter deeply for several minutes as he stared out the window

"Or perhaps," the woman hurried on after a moment, "it might be that you need more radium for the experiments you have in hand now, and there might be some sum paid me for the use of what I have? A sort of royalty? I am willing to do anything within reason"

Again there was a long pause Ahead of him, with this lutherto unheard of quantity of radium available, Professor Dexter saw rosy possibilities in his chosen work. The thought gripped him more firmly as he considered it. He could see little chance of a purchase—but the use of the substance during his experiments! That might be arranged.

"Madame" he said at last, "I want to thank you deeply for coming to me While I can promise nothing definite I can promise that I will take up the matter with certain persons who may be able to do something for you It's perfectly astounding Yes I may say that I will do something, but I shall perhaps require several days to bring it about Will you grant me that time?"

Mme du Chastaigny smiled

"I must of course," she said, and again she went off

burst which seemed to shake her whole body. "Of mto a paroxysm of coughing, a distressing, hacking out-THE PROFESSOR ON THE CASE. SII

for its use?" asked Professor Dexter have—that is a sale price—and another price merely " Could you fix a definite price for the quantity you or using it." hope that you can do something either in purchasing course," she added, when the spasm passed, "I can only

pleading note in her voice, and she laid one hand on his time Please, now please," and again there was a remain there for a few days and you may reach me any address on this card—Hotel Teutonic I expect to "I can't do that offiand of course, but here is my

may realize from the radium " six months I shall be absolutely dependent upon what I from Liverpool and my need is such that within another that I only arrived in this country yesterday by steamer " For your information," she went on, "I will explain She arose and Professor Dexter stood beside her. be only too glad to accept at at I can " arm, "don't hesitate to make any offer to me. I shall

quickly as he reached for the bag "Permit me, Madame," suggested Professor Dexter, she turned to go. fessor Dexter's awkward stumble Then with her burden agam she smiled, evidently at the recollection of Pro-She crossed the room, picked up the suit case and

Dexter noted, with certain admiration in his eyes the out Gazing through the window after her Professor There were a few commonplaces and then she went "Oh no, it is quite light," she responded easily

and was driven away He stood deeply thoughtful for graceful strong lines of her figure as she entered a carriage a minute considering the possibilities arising from her casual announcement of the existence of this unknown radium.

"If I only had that too," he muttered as he turned and re-entered his work room

An instant later, a cry—a wild amazed shriek—came from the laboratory and Professor Dexter, with pallid face, rushed out through the reception room and flung open the door into the main hallway. Half a dozen students gathered about him and from across the hall Mr Bowen, the instructor, appeared with startled eyes.

"The radium is gone—stolen!" gasped Professor Dexter

The members of the little group stared at one another blankly while Professor Dexter raved impotently and ran his fingers through his hair. There were questions and conjectures, a babble was raging about him when a new figure loomed up in the picture. It was that of a small man with an enormous yellow head and an eternal petulant droop to the corners of his mouth. He had just turned a corner in the hall

"Ah, Professor Van Dusen," exclaimed Professor Dexter, and he seized the long slender hand of The

Thinking Machine in a frenzied grip

"Dear me! 'Dear me!" complained The Thinking Machine as he sought to extract his fingers from the vice "Don't do'that What's the matter?"

"The radium is gone-stolen!" Professor Dexter

explained

The Thinking Machine drew back a little and squinted aggressively into the distended eyes of his fellow scientist "Why that's perfectly silly" he said at last "Come

in, please, and tell me what happened."

twitching lips. sank down on a chair with staring eyes and nervously through the great university. Inside Professor Dexter and turned away to send the astonishing news hurtling Outside Mr. Bowen and the students heard the click closed the door into the hallway and snapped the lock. tion room, whereupon The Thinking Machine turned, atremble, Professor Dexter followed him into the recep-With perspiration dripping from his brow and hands OZI

"Come_come in here—the laboratory and see," appearance?" happened? What were the circumstances of the dis-Thinking Machine irritably "Compose yourself What "Dear me, Dexter, are you crazy?" demanded The

"Oh, never mind that now," said the other impatiently. suggested Professor Dexter.

". How long was she here?" he asked at the end white fingers pressed tip to tip psck in his chair with squint eyes upturned and slender sway in the carriage The Thinking Machine leaned on the table in the laboratory until he saw her drive every circumtance from the time he placed the radium told the story of Mme du Chastaigny's call, covering perceptible effort Then, ramblingly but completely, he twice then sat down again, controlling himself with a Professor Dexter paced the length of the small room ". Tell me what happened?"

behind him. The Thinking Machine glanced back at the windov "Right where you are, facing the laboratory door" " Vhere did she sit?" "Ten minutes, I should say," was the reply.

" And you?" he asked.

"I sat here facing her"

"You know that she did not enter the laboratory?"

"I know it, yes," replied Professor Dexter promptly "No one save me has entered that laboratory today I have taken particular pains to see that no one did When Mr Bowen spoke to me I had the radium in my hand. He merely opened the door, handed me her card and went right out Of course it's impossible that-"

"Nothing is impossible, Mr Dexter," blazed The Thinking Machine suddenly "Did you at any time

leave Mme du Chastaigny in this room alone?"

"No, no," declared Dexter emphatically "I was looking at her every moment she was here, I did not put the radium out of my hand until Mr Bowen was out of this room and in the hallway there I then came into this room and met her "

For several minutes The Thinking Machine sat perfectly silent, squinting upward while Professor Dexter gazed into the inscrutable face anxiously

"I hope," ventured the Professor at last, "that you do not believe it was any fault of mine?"

The Thinking Machine did not say

"What sort of a voice has Mme du Chastaigny?" he asked instead

The Professor blinked a little in bewilderment

"An ordinary voice-the low voice of a woman of education and refinement," he replied.

"Did she raise it at any time while talking?"

"No"

"Perhaps she sneezed or coughed while talking to you?"

Unadulterated astonishment was written on Professor Dexter's face

was a flash of comprehension in the narrow blue eyes "Ah!" exclaimed The Thinking Machine and there "She coughed, yes, violently," he replied

Professor Dexter was staring at the scientist blankly. "Twice, I suppose?"

"Yes, twice," he responded.

" S else girthyth "

" What was the occasion of her laughter?" ". Well, she laughed I think,"

"I stumbled over a sut case she had set down by

the laboratory door there."

on a matter of importance. that Mme du Chastaigny desired to see Professor Dexter was a short note, just a few lines in French, explaining and which he still carried crumpled up in his hand It which Mine, du Chastaigny had given to Professor Dexter of emotion, then reached for the letter of introduction The Thinking Machine absorbed that without evidence

saked The Thinking Machine after a cursory examina-"Do you happen to know Mme Curre's handwriting?"

her about this work?" tion ". Of course you had some correspondence with

" We'll see after a while," commented The Thinking that is genuine, if that's what you mean " Aniat I " "I know her writing, yes," was the reply

He stose and led the way into the laboratory There Machine.

grew in his tall brow. the glass roof above, the single door. Then wrinkles sdninted about the room, at the highly placed windows, ing beside it he made some mental calculation as he work table where the radium had been placed Professor Dexter indicated to him the exact spot on the "I presume all the wall windows are kept fastened?"

"Yes, always"

"And those in the glass roof?"

'Yes.'

"Then bring me a tall step-ladder please!"

It was produced after a few minutes. Professor Dexter looked on curiously and with a glimmer of understanding as The Thinking Machine examined each catch on every window, and tapped the panes over with a pen-knife. When he had examined the last and found all locked he came down the ladder

"Dear me!" he exclaimed petulantly "It's perfectly extraordinary—most extraordinary If the radium was not stolen through the reception room, then—then—" He glanced around the room again

Professor Dexter shook his head. He had recovered his self-possession somewhat, but his bewilderment left him helpless.

"Are you sure, Professor Dexter," asked The Thinking Machine at last coldly "are you sure you placed the radium where you have indicated?"

There was almost an accusation in the tone and Professor Dexter flushed hotly

"I am positive, yes," he replied

"And you are absolutely certain that neither Mr Bowen nor Mme du Chastaigny entered this room?"

"I am absolutely positive"

The Thinking Machine wandered up and down the long table apparently without any interest handling the familiar instruments and glittering appliances as a master

"Did Mme. du Chastaigny happen to mention any children?" he at last asked, irrelevantly

Professor Dexter blinked again

" Adopted or otherwise?" " No," he replied. 721

"She arrived in this country yesterday you said ?" usual kind of a suit case—sole leather I imagine " didn't particularly notice. It seemed to be about the "Oh, I don't know," replied Professor Dexter "I " Just what sort of a suit case was that she carried " ".oN "

Professor Dexter glanced at it. It was. ". Please have this sent by cable at once " paper and handed it to Professor Dexter grunted. Then he scribbled a line or two on a scrap of "It's perfectly extraordinary," The Thinking Machine " səX "

"Augustus S. F. X. Van Dusen" duction for Professor Dexter? Answer quick. "Did you give Mme, du Chastaigny letter of intro-" Mme. Curie, Paris.

"You don't believe that Mme du Chastaigny could opened a little As Professor Dexter glanced at the dispatch his eyes

" Yhat?" be," interrupted the other abruptly. "I daresay I know what Mme. Curie's answer will psac-, pe pegan

"Your veracity may be brought into question " " Zhen—? " then—" He paused. "It will be no," was the positive reply. "And

out a word, Professor Dexter saw The Thinking Machine With flaming face and tightly clenched teeth but withunlock the door and pass out Then he dropped into a chair and buried his face in his hands. There Mr Bowen found him a few minutes later

"Ah, Mr Bowen," he said, as he glanced up, "please have this cable sent immediately"

CHYPTER XIII

THE SUIT CASE

ONCE in his apartments The Thinking Machine telephoned to Hutchinson Hatch, reporter, at the office of man was fairly bubbling with suppressed emotion when he rushed into the booth to answer and the exhilaration of pure enthusiasm made his voice vibrant when he spoke. The Thinking Machine readily understood

by seek to you," he said to speak to you," he said

"Yes," Hatch replied. "Just heard of it this minute—a bulletin from Police Headquarters. I was about to

go out on it ".

So out on it ".

"Please do something for me first," requested The Thinking Machine "Go at once to the Hotel Teutonic and ascertain indisputably for me whether or not Mme du Chastaigny, who is stopping there, is accompanied by a child."

"Certainly, of course," said Hatch, "but the story—"
"This is the story," interrupted The Thinking Machine, tartly "It you can learn nothing of any child at the hotel go to the steamer on which she arrived yesterday from Liverpool and inquire there I must have definite, absolute, indisputable evidence."

"I'm off," Hatch responded.

He hung up the receiver and rushed out He happened to be professionally acquainted with the chief clerk of the Teutonic, a monosyllabic, rotund gentleman who was an occasional source of private information and who spent his life adding up a column of figures

"Hello, Charlie," Hatch greeted him "Mme du

Chastaigny stopping here?"

"Yep," said Charlie

"Husband with her?"

"Nope"

"By herself when she came?"

" Yep "

"Hasn't a child with her?"

"Nope"

"What does she look like?"

"A corker!" said Charlie

This last loquacious outburst seemed to appease the reporter's burning thirst for information and he rushed away to the dock where the steamship, Granada from Liverpool, still lay Aboard he sought out the purser and questioned him along the same lines with the same result. There was no trace of a child. Then Hatch made his way to the home of The Thinking Machine.

"Well?" demanded the scientist

The reporter shook his head

"She hasn't seen or spoken to a child since she left Liverpool so far as I can ascertain," he declared.

It was not quite surprise, it was rather perturbation in the manner of The Thinking Machine now—It showed in a quick gesture of one hand, in the wrinkles on his brow, in the narrowing down of his eyes. He dropped

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oack into a chair and remained there silent, thoughtful

conldn't have been," the scientist broke out finally "It couldn't have been, it couldn't have been, it for a long time.

radium so far as it was known lerk and related to the reporter the story of the lost while The Thinking Machine aroused himself with a ever it was, Hatch discreetly remained silent. After a Having no personal knowledge on the subject, what-

of the radium from that room ?" What method was employed to cause the disappearance is hardly worth considering. The question now is my conjecture is correct, a 'Yes' will mean—but that asking Mme. Curie A ' No ' from her will mean that "Frankly I believe that letter to be a forgery. I cabled the way for Mme due Chastargny," he explained "The letter of introduction from Mime. Curie opened

as suddenly. then arose suddenly after which he sat down again, just open with hurried fingers He glanced at the sheet once, a cablegram to The Thinking Machine and he ripped it The door opened and Martha appeared She handed

"It's 'Yes," was the reply. "What is it?" ventured Hatch

y stupid of me," he grumbled and turning sh on the floor. flashed into his mind He permitted the glass to fall fluid, to get the lamp light through it, when an idea housting a graduated glass, containing a purplish, hazy experiment about eight o'clock that night He was just Thinking Machine was making some sort of chemical In the seclusion of his own small laboratory The

he walked into an adjoining room without so much as a glance at the wrecked glass. A minute later he had Hutchinson Hatch on the telephone

"Come right up," he instructed

There was that in his voice which caused Hatch to jump. He seized his hat and rushed out of his office. When he reached The Thinking Machine's apartments that gentleman was just emerging from the room where the telephone was

"I have it," the scientist told the reporter, forestalling a question "It's ridiculously simple. I can't imagine how I missed it except through stupidity"

Hatch smiled behind his hand Certainly stupidity was not to be charged against The Thinking Machine

"Come in a cab?" asked the scientist

"Yes, it's waiting"

"Come on then "

They went out together The scientist gave some instruction to the cabby and they clattered off

"You're going to meet a very remarkable person," The Thinking Machine explained "He may cause trouble and he may not—any way look out for him. He's tricky"

That was all. The cab drew up in front of a large building, evidently a boarding house of the middle class. The Thinking Machine jumped out, Hatch following, and together they ascended the steps. A maid answered the bell.

"Is Mr—Mr—oh, what's his name?" and The Thinking Machine snapped his fingers as if trying to remember "Mr—, the small gentleman who arrived from Liverpool yesterday—"

"Oh," and the maid smiled broadly, "you mean Mr.

Berkerstrom?" exclaimed the scientist, "Is

he in, please?" "Shall smiling. "Shall ". I think so, sir," said the maid, still smiling.

" No, it isn't necessary," replied The Thinking Machine.

"We are from the theatre, He is expecting us."

"Second floor, rear," said the maid.
They ascended the stairs and paused in front of a

They ascended the stans and paused in front of a door. The Thinking Machine tried it softly. It was unlocked and he pushed it open. A bright light blazed from a gas jet but no person was in sight. As they stood silent, they heard a newspaper rattle and both stood silent, they heard a newspaper rattle and both looked in the direction whence came the sound.

Still no one appeared. The Thinking Machine raised a finger and tiptoed to a large upholatered chair which faced the other way. One slender hand disappeared on the other side to be litted immediately. Wriggling in his grasp was a man—a toyman—a midget ministure in smoking jacket and slippers who swore fluently in German. Hatch burst out laughing, an uncontrollable fit which left him breathless.

"Mr. Berkerstrom, Mr. Hatch," said The Thinking Machine gravely. "This is the gentleman, Mr. Hatch, who stole the radium. Before you begin to talk, Mr. Berkerstrom, I will say that Mme. du Chastaigny has been arrested and has confessed."

"Ach, Gott!" raged the little German, "Let me

down, der chau in, ef you blease."

The Thinking Machine lowered the tiny wriggling figure into the chair while Hatch closed and locked the figure into the chair while Hatch closed and locked the figure into the reporter came back and looked, laughter

was gone The drawn wrinkled face of the midget, the babyish body, the toy clothing, added to the pitiful helplessness of the little figure. His age might have been fifteen or fifty, his weight was certainly not more than twenty-five pounds, his height barely thirty inches

"It iss as we did him in der theatre, und-" Mr

Berkerstrom started to explain limpingly

"Oh, that was it?" inquired The Thinking Machine curiously as if some question in his own mind had been settled "What is Mme du Chastaigny's correct name?"

"She iss der famous Mlle Fanchon, und I am der marvellous midget, Count von Fritz," proclaimed Mr

Berkerstrom proudly in play-bill fashion

Then a glimmer of what had actually happened flashed through Hatch's mind, he was staggered by the sublime audacity which made it possible. The Thinking Machine arose and opened a closet door at which he had been staring. From a dark recess he dragged out a suit case and from this in turn a small steel box.

"Ah, here is the radium," he remarked as he opened the box. "Think of it, Mr Hatch An actual value of millions in that small box."

Hatch was thinking of it, thinking all sorts of things as he mentally framed an opening paragraph for this whooping big yarn. He was still thinking of it as he and The Thinking Machine accompanied willingly enough by the midget, entered the cab and were driven back to the scientist's house.

An hour later Mme du Chastaigny called by request She imagined her visit had something to do with the purchase of an ounce of radium, Detective Mallory, watching her out a corner of his official eye, imagined she imagined that The next caller was Professor Dexter

Dumb anger gnawed at his heart, but he had heeded a telephone request. The Thinking Machine and Hatch

telephone request. The Thinking Machine and Haron "Mow, Mme, du Chastaigny, please," The Thinking "Mow, Mme, du Chastaigny, please," The Thinking

Machine began quietly, "will you please," The Thinking you have another ounce of radium in addition to that you stole from the Varuard laboratory?"

you stole from the Yarvard laboratory?"

Machine was staring upward with squint eyes and finger tips pressed together. He didn't alter his position in the slightest at her sudden move—but Detective Mallory did. "Stole?" exclaimed Mme du Chastaigny. "Stole?" "That's the word I used," said The Thinking Machine "That's the word I used," said The Thinking Machine

simost pleasantly.

Into the woman's eyes there leapt's blaze of tigerish sat down again, perfectly pallid

sat down again, perfectly pallid

"Count von Fritz has recounted his part in the affair to me," went on The Thinking Machine. He leaned forward and took a package from the table, "Here is the radium. Now have you any radium in addition to the radium.

"The radium!" gasped the Professor incredulously.
"If there is no denial Count von Fritz might as well come in, Mr Hatch," remarked The Thinking Machine.
Hatch opened the door. The midget bounded into

the room true theatric style.
"Is it enough, Mile Fanchon?" inquired the scientist.
There was an irong touch in his worse

There was an monic touch in his voice.

Mime, du Chastaigny nodded, dumbly.

"It would interest you, of course, to know how it

"It would interest you, of course, to know how it came out," went on The Thinking Machine, "I daresay your inspiration for the theft came from a news-

paper article, therefore you probably know that I was directly interested in the experiments planned. I visited the laboratory immediately after you left with the radium Professor Dexter told me your story. It was clever, clever, but there was too much radium, therefore unbelievable. If not true, then why had you been there? The answer is obvious

"Neither you or anyone else save Mr Dexter entered that laboratory Yet the radium was gone How? My first impression was that your part in the theft had been to detain Mr Dexter while someone entered the laboratory or else fished out the radium through a window in the glass roof by some ingenious contrivance I questioned Mr. Dexter as to your precise acts, and ventured the opinion that you had either sneezed or coughed You had coughed twice—obviously a signal—thus that view was strengthened

"Next, I examined window and roof fastenings—all were locked I tapped over the glass to see if they had been tampered with. They had not Apparently the radium had not gone through the reception room, certainly it had not gone any other way—yet it was gone It was a nice problem until I recalled that Mr Dexter had mentioned a suit case Why did a woman, on business, go out carrying a suit case? Or why, granting that she had a good reason for it, should she take the trouble to drag it into the reception room instead of leaving it in the carriage?

"Now, I didn't believe you had any radium, I knew you had signalled to the real thief by coughing Therefore I was prepared to believe that the suit case was the solution of the theft How? Obviously, something concealed in it. What? A monkey? I dismissed that

because the thief must have had the reasoning instinct, more probable, yet it was improbable. I proceeded, however, on the hypothesis that a child carefully instructed had been the actual thief."

Open eyes were opened wider. Mme, du Chastaigny, being chiefly concerned, followed the plain, cold reasoning as it fascinated. Count von Fritz straightened his necktie and smiled.

"I sent a cable to Mme. Curre asking if the letter of mitroduction were genuine, and sent Mr Hatch to get a trace of a child, He informed me that there was no child just about the time I heard from Mme. Curre that the letter was genuine. Time after time I reasoned back to the starting point. Time after time I reasoned it out, always the same way—finally the solution came it out, always the same way—finally the solution came I not a monkey or a child then what? A midget Of the four, always the same way—finally the solution came it was stupid of me not to have seen that possibility at first.

Then there remained only the task of finding him. "Then there remained only the task of finding him.

He probably came on the same boat with the woman, and I saw a plan to find him. It was through the driver got his number by phone at the Hotel Teutonic Where had Mme, du Chastaigny left a suit case? He gave me an address I went there

"I won't attempt to explain how this woman obtained the letter from Alme. Curie. I will only say that a woman who undertakes to sell an ounce of radium to a man from whom she intends to steal it is clever enough to do anything. I may add that she and the midget are the anything. I may add that she and the midget are the anything. I may add that she and the midget are the anything. I may add that she and the midget are to do anything. I may add that she and the midget are to do anything. I may add that she and the midget are to do anything. I may add that she and the midget are to do anything. I may add that she and the midget are to do anything.

Of course the suit case is so built that the midget could open and close it from inside "

"Und it always gets der laugh," interposed the midget, complacently

After awhile the prisoners were led away Count von Fritz escaped three times the first day by the simple method of wriggling between the bars of his cell

CHYPTER XIV

THE GREEN-EYED MONSTER

With coffee cup dainfuly poised in one hand, Mrs. Lingard van Safford lifted wistful, bewitching eyes towards her husband, who sat across the breakfast table partially appears to the present of the morning papers.

"Are you going out this morning?" she inquired,

Mr van Safford grunted marticulately, "May I inquire," she went on placidly, and a dimple snuggled at a corner of her mouth, "if that particular grunt means that you are or are not ?".

grunt means that you are or are not?"
Mr. van Safford lowered his newspaper and glanced

at his wife's pretty face. She smiled charmingly.
"Really, I beg your pardon," he apologized, "I hardly think I will go out, I feel rather listless, and I must write some letters. Why?"

"Oh, nothing particularly," she responded, She took a last sip of her coffee, brushed two or three tiny crumbs from her lap, laid her napkin aside, and arose. Once she turned and glanced back; Mr. van

Safford was reading again.

After a while he finished the papers and stood looking out a window, yawning prodigiously at the prospect of letters to be written. His wife entered and picked up of letters to be written. His wife entered and picked up of letters to be written. His wife entered and picked up

merely glanced around. She was dressed for the street—immaculately, stunningly gowned as only a young and beautiful woman can gown herself

"Where are you going, my dear?" he inquired, lan-

guidly

"Out," she responded archly

She passed through the door He heard her step and the rustle of her skirts in the hall, then he heard the front door open and close For some reason, not quite clear even to himself, it surprised him, she had never done a thing like that before He walked to the front window and looked out. His wife went straight down the street, and turned the first corner. After a time he wandered away to the library to nurse an emotion he had never felt before. It was curiosity

Mrs van Safford did not return home for luncheon, so he sat down alone Afterwards he mouched about the house restlessly for an hour or so, then he went down town. He appeared at home again just in time to dress for dinner

"Has Mrs van Safford returned?" was his first question of Baxter, who opened the door

"Yes, sir, half an hour ago," responded Baxter

"She's dressing"

Mr van Safford ran up the steps to his own apartments. At dinner his wife was radiant, rosily radiant. The flush of perfect health was in her cheeks and her eyes sparkled beneath their long lashes. She smiled brilliantly upon her husband. To him it was all as if some great thing had been taken out of his life, leaving it desolate, then as suddenly returned. Unnamed emotions struggled within him prompted by that curiosity of the morning, and a dozen questions hammered insist-

ently for answers. But he repressed them gallantly, and for this he was duly rewarded.

or this he was duly rewarded.
"I had such a delightful time to-day!" his wife exclaimed, after the soup. "I called for Mrs. Blacklock immediately after I left here, and we were to-gether all day shopping. We had luncheon down town."

Oh! That was it! Mr. van Safford laughed outright from a vague sense of relief which he could not have called by name, and toasted his wife silently by lifting his glass. Her eyes sparkled at the compliment, He drained the glass, snapped the slender stem in his fingers, laughed again and laid it aside. Mrs van Safford dimpled with sheer delight,

"Oh, Van, you silly boy!" she reproved softly, and the salt

It was only a little while after dinner that Mr. van Safford excused himself and started for the club, as usual His wife followed him demurely to the door and there, under the goggling eyes of Baxter, he caught her in his arms and kissed her impetuously, fiercely even. It was the sudden outbreak of an impulsive nature—the sort of thing that makes a woman know she is loved sort of thing that makes a woman know she is loved forward pleadingly. Then the door closed, and she stood forward pleadingly. Then the door closed, and she stood staring down at the tip of her tiny boot with lowered lide and a little, melancholy droop at the corners of her mouth.

It was after ten o'clock when Mr. van Safford awoke on the following morning. He had been at his club late—until after two—and now drowally permitted himself to be overcome again by the languid listlessness which is

the heritage of late hours At ten minutes past eleven he appeared in the breakfast room.

"Mrs van Safford has been down I suppose?" he

inquired of a maid

"Oh yes, sır," she replied. "She's gone out."

Mr van Safford lifted his brows inquiringly

"She was down a few minutes after eight o'clock, sir," the maid explained, "and hurried through her breakfast"

"Did she leave any word?"

"No, sır"

"Be back to luncheon?"

"She didn't say, sir"

Mr van Safford finished his breakfast silently and thoughtfully About noon he, too, went out One of the first persons he met down town was Mrs Blacklock, and she rushed toward him with outstretched hand.

"I'm so glad to see you," she bubbled, for Mrs Black-lock was of that rare type which can bubble becomingly "But where, in the name of goodness, is your wife? I haven't seen her for weeks and weeks?"

"Haven't seen her for-" Mr van Safford repeated,

slowly

"No," Mrs Blacklock assured him "I can't imagine

where she is keeping herself "

Mr van Safford gazed at her in dumb bewilderment for a moment, and the lines about his mouth hardened a little despite his efforts to control himself

"I had an impression," he said deliberately, "that you saw her yesterday—that you went shopping together?"

gemer r

"Goodness, no It must be three weeks since I saw her"

turbulent rush of mingled emotions. his face relaxed a little, masking with a slight smile, a Mr. van Safford's fingers closed slowly, fiercely, but

"Perhaps she said she was going to call on you. I mis-"She mentioned your name," he said at last, calmly.

He didn't remember the remainder of the conversaunderstood her "

stream Finally he arose, grimly. and conjectures flowed through his brain in an unending At last he found himself at his club, and there idle guesses had not misunderstood her, and he knew he had not. tion, but it was of no consequence at the moment. He

amount to anything, of course, but-" "I suppose I'm an ass," he mused. "It doesn't

the 'phone and called up his home ally he flung down the cue in disgust, strode away to self to open derision for glaringly maccurate play. Finover a game of billiards, matead he only subjected him-And he sought to rid himself of distracting thoughts

Baxter. "Is Mrs. van Safford there?" he inquired of

a rush of skurts and a lilt of laughter. He drew a long tasted it Then, just as he finished, she came in with to dinner, alone. He didn't enjoy it, indeed hardly His write was still out At half past eight he sat down hung up the receiver At six o'clock he returned home Mr van Safford banged the telephone viciously as he "No, sir 'She hasn't returned yet"

ıngly. "You poor, deserted dear!" she sympathized, laughbreath, and set his teeth

arms were about his neck, and a velvety cheek rested He started to say something, but two soft, chinging

against his own, so-so he kissed her instead. And really he wasn't at all to be blamed. She sighed happily, and laid aside her hat and gloves

"I simply couldn't get here any sooner," she explained poutingly as she glanced into his accusing eyes. was out with Nell Blakesley in her big, new touring car, and it broke down and we had to send for a man to repair it. so-"

He didn't hear the rest, he was staring into her eyes, steadily, inquiringly Truth shone triumphant there, he could only believe her Yet-yet-that other thing! She hadn't told him the truth! In her face, at last, he read uneasiness as he continued to stare, and for a moment there was silence

"What's the matter, Van?" she inquired solicitously "Don't you feel well?"

He pulled himself together with a start and for a time they chatted of inconsequential things as she ate He watched her until she pushed her dessert plate aside, then casually, quite casually

"I believe you said you were going to call on Mrs Blacklock to-morrow?"

She looked up quickly

"Oh no," she replied. "I was with her all day yes-

terday, shopping I said I had called on her"

Mr van Safford arose suddenly, stood glaring down at her for an instant, then turning abruptly left the house. Involuntarily she had started up, then she sat down again and wept softly over her coffee Mr van Safford seemed to have a very definite purpose for when he reached the club he went straight to a telephone booth, and called Viss Blakesley over the wire

"My wife said something about—something about—"

he stammered lamely, "something about calling on you to-morrow. Will you be in ?"

"Yes, and I'll be so glad to see her," came the reply. "I'm dreadfully tired of staying cooped up here in the house, and really I was beginning to think all my friends

had deserted me " Cooped up in the house?" Mr. van Safford repeated.

"Are you ill?"
"I have been," replied Miss Blakesley. "I'm better

now, but I haven't been out of the house for more than a week."
"Indeed!" remarked Mr. van Safford, sympathetic-

ally., "I'm awfully sorry, I assure you. Then you ing car'?"

"Why, I haven't any sort of a car," said Miss Blakesley "I haven't any sort of a car, Where did

Mr. van Safford didn't answer her; rudely enough he hung up the telephone and left the club with a face like maible. When finally he stopped walking he was opposite his own house. For a minute he stood looking at it much as if he had never seen it before, then he turned and went back to the club. There was something of firight, of horror even, in his white face when he entered. As Mr van Safford did not go to bed that night it breakfast room when she came down about eight o'clock breakfast room when she came down about eight o'clock breakfast room when she came an ominous silence. She finnered her breakfast, arose and left the house without a word her breakfast, arose and left the house without a speed her breakfast, arose and left the house without a spead her breakfast, arose and left the house without a speed her breakfast, arose and left the house without a speed of the watched her from a window until she disappeared around the corner, just four doors below, then

overcome by fears, suspicions, hideous possibilities, he ran out of the house after her

She had not been out of his sight more than half a minute when he reached the corner, yet now—now she was gone. He looked on both sides of the street, up and down, but there was no sign of her—not a woman in sight. He knew that she would not have had time to reach the next street below, then he readily saw the two obvious possibilities. One was that she had stepped into a waiting cab and been driven away at full speed, another that she had entered one of the nearby houses. If so, which house? Who did she know in this street? He turned the problem over in his mind several times, and then he was convinced that she had hurried away in a waiting cab. That emotion which had begun as currosity was now a raging, turbulent torrent.

On the following morning Mrs van Safford came down to breakfast at fifteen minutes of eight. She seemed a little tired, and there was a trace of tears about her eyes Baxter looked at her curiously

"Has Mr van Safford been down yet?" she asked.

"No, Madam," he replied

"Did he come in at all last night?"

"Yes, Madam About half past two I let him in.

He had forgotten his key "

Now as a matter of fact at that particular moment Mr van Safford was standing just around the corner, four doors down, waiting for his wife. Just what he intended to do when she appeared was not quite clear in his mind, but the affair had gone to a point where he felt that he must do something. So he waited impatiently, and smoked innumerable cigars. Two hours passed. He glanced around the corner. No one in sight.

THE PROFESSOR ON THE CASE.

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the servant "Has Mrs van Safford come down?" he asked of hall.

He strolled back to the house, and met Baxter in the

an hour ago." "Yes, sir," was the reply. "She went out more than

CHAPTER XV

TWO AND TWO AGAIN MAKE FOUR

MARTHA opened the door

"Please, sır," she said, "there's a young gentleman

having a fit in the reception room."

Professor Augustus S F X. Van Dusen—The Thinking Machine—turned away from his laboratory table and squinted at her aggressively. Her eyes were distended with nervous excitement, and her wrinkled hands twisted the apron she wore.

"Having a fit?" snapped the scientist.

"Yes sir" she gasped.

- "Dear me! Dear me! How annoying!" expostulated the man of achievement, petulantly "Just what sort of a fit is it—epileptic, apoplectic or merely a fit of laughter?"
- "Lord, sir, I don't know," Martha confessed helplessly "He's just a-walking and a-talking and a-pulling his hair sir"

"What name?"

"I—I forgot to ask, sir" apologized the aged servant, "it surprised me so to see a gentleman a-wiggling like that. He said though he'd been to Police Headquarters and Detective Mallory sent him.'

The eminent logician dried his hands and started for

Mr. van Safford blazing, and his face was flushed with anger. It was the room with quick, savage stride. His eyes were good-looking young man pacing back and forth across cantion What he saw was not alarming—merely a visitor had chosen to have he felt the necessity of this m. With no knowledge of just what style of fit his the reception room. At the door he paused and peered

into something closely approaching surprise. man paused and his anger-distorted features relaxed Machine, topped by the enormous yellow head, the young At sight of the diminutive figure of The Thinking

"Well?" demanded The Thunking Machine, queru-

lously.

a different sort of person." slight start. "I-I had expected to find a-rather "I beg your pardon," said Mr. van Safford with a

" awob "A man with a black moustache and big feet. Sit "Yes, I know," said The Thinking Machine grumpily.

Mr van Safford sat down rather suddenly. It never

" My mental condition—my suffering—was such," tips pressed together and listened to the end. Thinking Machine leaned back in his chair, with finger lar happenings which had so disturbed him. The laid before The Thinking Machine in detail those singuence which was thoroughly convincing, Mr. van Safford crabbed little scientist spoke. Then, with an incoheroccurred to anyone to do other than obey when the

strangled her." represented the facts to me, wilfully, I-I could have proved to my own satisfaction that she had twice misexplained Mr van Safford in conclusion, "that when I

marked

"That would have been a nice thing to do," remarked the scientist crustily "You believe, then, that there may be another—"

"Don't say it," burst out the young man passionately He arose. His face was dead white "Don't say it,"

he repeated, menacingly

The Thinking Machine was silent a moment, then glanced up in the blazing eyes and cleared his throat

"She never did such a thing before?" he asked.

"No, never"

"Does she-did she-ever speculate?"

Mr van Safford sat down again.

"Never," he responded, positively "She wouldn't know one stock from another"

"Has her own bank account?"

"Yes—nearly four hundred thousand dollars. This was her father's gift at our wedding. It was deposited in her name, and has remained so. My own income is more than enough for our uses."

"You are rich, then?"

"My father left me nearly two million dollars," was the reply "But this all doesn't matter What I want——"

"Wait a minute," interrupted The Thinking Machine testily There was a long pause. "You have never quarrelled seniously?"

"Never one cross word," was the reply

"Remarkable," commented The Thinking Machine ambiguously "How long have you been married?"

"Two years-last June."

"Most remarkable," supplemented the scientist. Mr van Safford stared. "How old are you?"

"Thirty"

". How long have you been thuty ?"

"Six months—since last May."

". Have you any brothers or sisters"

".oN "

ordinary."

Dresence

" f ads she ?"

" oN "

" on ,oV "

"She has never had any mental trouble of any sort?"

"Twenty-two, in January."

"How old is your wife?" demanded the scientist.

not see the trend of the questioning.

There was a long pause. Mr. van Safford plainly did

pleasant " nuconer something which is, to put it mildly, not sion," pursued the other, " we are more than likely to "Yet, the moment we pursue this to a logical conclu-" Certainly not," the young man exploded, violently. tist, " that there is anything criminal in—" "You don't believe, of course," continued the scienone express his own thoughts so accurately

Mr, van Safford seemed a little relieved to find some

a problem without a given quantity. Perfectly extraat last, and the wrinkles deepened " It is, I may say, " It's a most intangible, elusive affair," he commented

like brow, and he was apparently oblivious of the other's

glanced inquiringly at the pale, wizened face of the scienand forth with nervous energy From time to time he other pause, and the young man arose and paced back and Mr. van Safford answered briefly There was an-The Thinking Machine shot out the questions crustily

Several thin lines had appeared in the dome-

Mr van Safford's face was perfectly white, his hands were clenched desperately. Then the loyalty to the woman he loved flooded his heart

"It's nothing of that kind," he exclaimed, and yet his own heart misgave him "My wife is the dearest, noblest, sweetest woman in the world And yet—"

"Yet you are jealous of her," interrupted The Thinking Machine "If you are so sure of her, why annoy me with your troubles?"

The young man read, perhaps, a deeper meaning than The Thinking Machine had intended for he started forward impulsively. The Thinking Machine continued to squint at him impersonally, but did not change his position.

"All young men are fools," he went on, blandly, "and I may add that most of the old ones are, too But now the question is What purpose can your wife have in acting as she has, and in misrepresenting those acts to you? Of course we must spy upon her to find out, and the answer may be one that will wreck your future happiness. It may be, I say I don't know Do you still want the answer?"

"I want to know—I want to know," burst out Mr van Safford, harshly "I shall go mad unless I know"

The Thinking Machine continued to squint at him with almost a gleam of pity in his eyes—almost but not quite. And the habitually irritated voice was in no way softened when he gave some explicit and definite instructions

"Go on about your affairs," he commanded. "Let things go as they are Don't quarrel with your wife, continue to ask your questions because if you don't she'll suspect that you suspect, report to me any change

in her conduct It's a very singular problem. Certainly

The Thinking Machine accompanied him to the door I have never had another like it."

and closed it behind him.

wasn't in trouble" "I have never seen a man in love," he mused, " who

went to the 'phone Half an hour later Hutchinson And with this broad, philosophical conclusion he

tist sat in deep thought. Hatch, reporter, entered the laboratory where the scien-

"Ah, Mr. Hatch," he began, without preliminary,

Safford?" "did you, ever happen to hear of Mr. and Mrs van

beautiful women I ever saw She was a Miss Potter high in society and all that, and she's one of the most ınterest. " He's a well known club-man, worth millions, " Well, rather," responded the reporter with quick

"It's wonderful the memories you newspaper men before marriage"

sonally?" have," observed the scientist "You know her per-

Hatch shook his head.

in this may prevent a divorce." has done this every day for four days. Your assiduity been with some one that we know she hasn't seen. She morning at eight o'clock, then tells her husband she has from her why Mrs van Safford leaves her house every instance—one who might be in her confidence. Learn commanded The Thunking Machine, "a girl friend, for "You must find some one who knows her well,"

Blakesley has—or 1s—suffering That's all " " Also find out just what sort of an illness Miss Well Hatch pricked up his ears.

An hour later Hutchinson Hatch, reporter, called on Miss Gladys Beekman, a young society woman who was an intimate of Mrs van Safford's before the latter's marriage. Without feeling that he was dallying with the truth Hatch informed her that he called on behalf of Mr van Safford. She began to smile He laid the case before her emphatically, seriously and with great detail. The more he explained the more pleasantly she smiled It made him uncomfortable but he struggled on to the cnd.

"I'm glad she did it," exclaimed Miss Beekman
"But I—I couldn't believe she would"

Then came a sudden gust of laughter which left Hutchinson Hatch, reporter, with the feeling that he was being imposed upon. It continued for a full minute—a hearty, rippling, musical laugh. Hatch grinned sheepishly. Then, without an excuse, Miss Beekman arose and left the room. In the hall there came a fresh burst, and Hatch heard it dying away in the distance.

"Well," he muttered grimly "I'm glad I was able to amuse her"

Then he called upon a Mrs Francis, a young matron whom he had cause to believe was also favoured with Mrs van Safford's friendship. He laid the case before her, and she laughed! Then Hutchinson Hatch, reporter, began to get mule-headed about it. He visited eight other women who were known to be on friendly terms with Mrs van Safford. Six of them intimated that he was an impertinent, prying inquisitive person and—the other two laughed! Hatch paused a moment and rubbed his fevered brow

"Here's a corking good joke on somebody," he told himself, "and I'm beginning to think it's me"

not been able to learn

Machine That distinguished gentleman listened in Pained surprise to the simple recital of what Hatch had

"Yes, it so struck me," agreed the reporter.

The Thinking Machine was silent for a long time; the watery blue eyes were furned upward and the slender white fingers pressed tip to tip. Finally be made in

white fingers pressed tip to tip. Finally he made up his mind as to the next step "There seems only one thing to do," he said. "And I won't ask you to do that "
"What is it?" demanded the reporter.

"To watch Mrs. van Safford and see where she goes."
"I wouldn't have done it before, but I will now "
Hatch responded promptly The bull-dog in him was
aroused. "I want to see what the joke is "
It was ten o'clock next evening when Hatch called

to make a report. He seemed a little weary and tremendously disgusted.

'I've been right behind her all day," he explained,
"'tom eight elections the morning matil the explained,"

lord'h torgive me—"
toat n'ne tonight when she reached home And if the
"tom eight o'clock this morning until twenty minutes

car After she got there she wandered around aimlessly all afternoon, nearly At ten minutes of four she gave a quarter to a crippled boy He bit it to see if it was good, found it was, then bought cigarettes with it At half past four she left the North End and went into a big department store. If there's anything there she didn't price I can't remember it. She bought a pair of shoe-laces. The store closed at six, so she went to dinner in another restaurant. I also had dinner. We left there at half past seven o'clock and went back to the Public I ibrary. She read until nine o'clock, and then went home. Phew!" he concluded.

The Thinking Machine had listened with growing and obvious disappointment on his face. He seemed so cast down by the recital that Hatch tried to cheer him.

"I couldn't help it you know," he said by way of apology "That's what she did."

"She didn't speak to anyone?"

"Not a soul but clerks, waiters and library attendants",

"She didn't give a note to anyone or receive a note?"

" No "

"Did she seem to have any purpose at all in anything she did?"

"No The impression she gave me was that she was killing time"

The Thinking Machine was silent for several min-

utes "I think perhaps-," he began.

But what he thought Hatch didn't learn for he was sent away with additional instructions. Next morning found him watching the front of the van Safford house again. Mrs. van Safford came out at seven minutes

back and ran forward just in time to see her skurts trailbehind her, and went in Hatch was some distance corner of an alley. There she paused, cast a quick look turned the first corner and went on, still rapidly, to the past eight o'clock, and walked rapidly eastward She 7SI

with grim satisfaction ' "Ah, here's something anyhow," he told himself, ing into a door

merely come out the front door and gone into the door-plate, was the name " van Safford". She had of hopeless meanity. For there, staring at him from a fully, then came utter bewilderment, an amazing sense When he examined the door he scratched his chin thoughta house, and was intended for the use of tradesmen. the other doors along in that it led into the back hall of He walked along the alley to the door. It was like

and up the steps changed his mind and walked around to the front again, Hatch started to rap and ask some questions, then

psck 1

who opened the door. "Is Mrs van Safford in?" he inquired of Baxter,

minutes ago." " No, su," was the reply. "She went out a few

away. Hatch stared at him coldly a minute, then walked

and then-" house without his knowledge, or else he has been bribed, he soliloquized "She has either gone back into the ". Now this is a particularly savoury kettle of fish,"

then arose and said "Ohl" three times Which was That imperturbable man of science listened to the end, And then, he took the story to The Thinking Machine.

interesting to Hatch in that it showed the end was in sight, but it was not illuminating. He was still floundering

The Thinking Machine started into an adjoining

room, then turned back

"By the way, Mr Hatch," he asked, "did you happen to find out what was the matter with Miss Blakesley?"

"By George, I forgot it," returned the reporter, ruefully

"Never mind, I'll find out"

At eleven o'clock Hutchinson Hatch and The Thinking Machine called at the van Safford home. Mr van Safford in person received them, there was a gleam of hope in his face at sight of the diminutive scientist Hatch was introduced, then

"You don't know of any other van Safford family

in this block?" began the scientist.

"There's not another family in the city," was the reply "Why?"

"Is your wife in now?"

"No She went out this morning, as usual."

"Now, Mr van Safford I'll tell you how you may bring this matter to an end, and understand it all at once Go upstairs to your wife's apartments—they are probably locked—and call her She won't answer but she'll hear you. Then tell her you understand it all, and that you're sorry She'll hear that as that alone is what she has been waiting to hear for some time. When she comes out bring her down stairs Believe me I should be delighted to meet so clever a woman."

Mr van Safford was looking at him as if he doubted

his sanity

"Really," he said coldly, "what sort of child's play 991

room," snapped The Thinking Machine belligerently, "It's the only way you'll ever coax her out of that " sidt si

"Are you serious?" demanded the other. " and you'd better do it gracefully"

every day, and coming in the back, with the full knowtime She has been merely going out the front door has taught you a lesson that you'll remember for some-" Perfectly serious," was the crabbed rejounder. " She

Mr van Safford listened in amazement. ledge of the cook and her maid."

so that you can pay attention to a beautiful woman who club of evenings, and a little less of selfish amusement, for you to answer. A little less of your time at the "Why?" retorted The Thinking Machine "That's "Why did she do it?" he asked.

time In your own selfishness you had never a thought and she was here alone probably a great part of that You've spent every evening at your club for months, to constant attention would solve this little problem. has, previous to her marriage at least, been accustomed

room Suddenly Mr van Safford turned and ran out of the of her, so she gave you a reason to think of her "

ending to a cracking good mystery, 1sn't it?" "By George!" remarked Hatch "That's a sully They heard him as he took the stairs, two at a

he was trankly, outrageously happy. There were mutual the room. Her pretty face was suffused with colour. Ten minutes later Mr. and Mrs. van Safford entered

"It was perfectly dreadful of Mr. van Safford to introductions call you gentlemen into this affair," Mrs. van Safford apologized, charmingly "Really I feel very much

ashamed of myself for-"

"It's of no consequence, madam," The Thinking Machine assured her "It's the first opportunity I have ever had of studying a woman's mind. It was not at all logical, but it was very—very instructive I may add that it was effective, too"

He bowed low, and turning picked up his hat.

"But your fee?" suggested Mr van Safford.

The Thinking Machine squinted at him sourly "Oh, yes, my fee," he mused. "It will be just five thousand dollars"

"Five thousand dollars?" exclaimed Mr van Safford.

"Five thousand dollars," repeated the scientist

"Why, man, it's perfectly absurd to talk-"

Mrs van Safford laid one white hand on her husband's arm. He glanced at her and she smiled radiantly

"Don't you think I'm worth it, Van?" she asked,

archly

He wrote the cheque The Thinking Machine scribbled his name across the back in a crabbed little hand, and passed it on to Hatch.

"Please hand that to some charitable organization," he directed. "It was an excellent lesson, Mrs van

Safford. Good day "

Professor Augustus S F X. Van Dusen, scientist, and Hutchinson Hatch, reporter, walked along side by side for two blocks, without speaking. The reporter broke the silence

"Why did you want to know what was the matter

with Miss Blakesley?" he asked.

"I wanted to know if she really had been ill or was

that by 'phone I also learned of Mr. van Safford's the reply. "She was ill with a touch of grippe. I got merely attempting to mislead Mr van Safford," was 821

club habits by 'phone from his club "

planned the scientist. "All things considered in this evidently discussed doing just what she did do," ex-"They were intimate friends with whom the wife had loke about?"

"And those women who laughed-what was the

I saw the solution. Because, 'Mr Hatch," and the I knew she went in the back door of her own house, report of Mrs van Safford's day of wandering, when them. I magned the true state of affairs from your case the facts could only have been as logic developed

some times, but all the time" face, " because two and two always make four -not scientist paused and shook a long finger in the reporter's

CHAPTER XVI

AN OPERA BOX

GRADUALLY the lights dimmed and the great audience became an impalpable, shadowy mass broken here and there by the vagrant glint of a jewel or the gleam of white shoulders. There was a preliminary blare of horns, then the crashing anvil chorus of "Il Trovatore" began. Sparks spattered and flashed as the sledges rose and fell in exquisite rhythm while the clangorous music roared through the big theatre.

Eleanor Oliver arose, and moving from the front of the box into the gloom at the rear, leaned her head wearily against the latticed partition. Her mother, beside whom she had been sitting, glanced up inquiringly as did her father and their guest Sylvester Knight.

"What's the matter, my dear?" asked Mrs Oliver

"Those sparks and that noise give me a headache," she explained. "Father, sit in front there if you wish I'll stay here in the dark until I feel better"

Mr Oliver took the seat near his wife and Knight immediately lost interest in the stage, turning his chair to face Eleanor She seemed a little pale and mingled eagerness and anxiety in his face showed his concern. They chatted together for a minute or so and under

cover of darkness his hand caught hers and held it a 091

was gazing deeply into the girl's eyes with adoration in glanced back warningly. Neither noticed it for Knight with Mrs Oliver's enjoyment of the music and she As they talked the drone of their voices interfered fluttering prisoner.

"Please don't," Mrs. Oliver heard him say pleaddmcgj λ his own. She made some remark to him and he protested

": I'm afraid I'll have to," the girl replied ingly as his voice was raised. "It won't be long."

Mrs Ohver turned and looked back at them reyou maist on it I shall have to do something desperate." "You mustn't," Knight commanded earnestly "If

"You children chatter too much," she said good naturedly, "You make more noise than the anvils" **Drovingly**

for a moment Finally the gul said something else that She turned again to the stage and Knight was silent

"Certainly," he replied. the mother didn't catch.

He offered the glass to Eleanor but she made no move or so, and the encore to the chorus was just ending with a glass of water He had been out only a minute Knight found her in just that position when he returned heavy volume of music The girl sat white and mert fall of the curtain behind him were smothered in the He arose quietly and left the box The swish and

essily "Eleanor has fainted, I think," he whispered unclosely Then he turned quickly to Mrs Oliver she did not move and he leaned over and looked at her to take it and he touched her lightly on the arm Still "Fainted?" exclaimed Mrs Oliver as she arose "Fainted?"

She pushed her chair back and in a moment was beside her daughter chaffing her hands. Mr Oliver turned and glanced at them with languid interest

"What's the matter now?" he inquired

"We'll have to go," replied Mrs Oliver "Eleanor has fainted."

" Again?" he asked impatiently

Knight hovered about anxiously, helplessly as the father and mother worked with the girl Finally in some way he never understood Eleanor was lifted out, still unconscious and white as death, and removed in a waiting carriage to her home. Two physicians were summoned and disappeared into her boudoir while Knight paced back and forth restlessly between the smoking room and the hall Mrs Oliver was with her daughter, Mr Oliver sat quietly smoking

"I wouldn't worry," he advised the young man after a few minutes "She has a trick of fainting like that You will know more about her after awhile—

when she is Mrs Knight"

From somewhere upstairs came a scream and Knight started nervously It was a shrill, penetrating cry that tore straight through him Mr Oliver took it phlegmatically, even smiled at his nervousness.

"That's my wife fainting," he explained. "She always does it that way You know," he added confidentially, "my wife and two daughters are so exhausted with this everlasting social game that they go off like that at any minute I've talked to them about it but they won't listen"

Heedless of the idle, even heartless, comments of the

troubled perplexity. had been called On his face was an expression of down, it was Dr Brander, one of the two physicians who of the stairs looking up. After a minute a man came father Knight stopped in the hall and stood at the foot

"Where is Mr Oliver?" asked Dr Brander. "How is she?" demanded Knight abruptly

"In the smoking room," replied the young man

Without answering the physician went on to the " What's the matter?"

father. Mr Ohver looked up.

"Bring her around all right?" he asked

"She's dead," replied the physician.

"Dead?" gasped Knight

recovered himself. his face grew deathly pale. With a distinct effort he fiercely by a shoulder. For an instant he gazed and then Mr. Oliver rose suddenly and gripped the physician

"Her heart?" he asked at last.

Dr. Brander looked from one to the other of the two " No She was stabbed"

"Why it can't be," burst out Knight suddenly white faces with troubled lines about his eyes.

". Where is she? I'll go to her "

"You can do no good," he said quietly. Dr Brander laid a detaining hand on his shoulder.

last the father found voice that clung to his shoulder was trembling horribly At curiously watched the struggle in his face. The hand For a time Mr Oliver was dumb and the physician

we examined her we found the knife—a long, keen, short-"She was stabbed," said Dr Brander again. "When "What happened?" he asked.

directly under her left arm and penetrated the heart. She must have been dead when she was lifted from the box at the opera The stiletto remained in the wound and prevented any flow of blood while its position and the short handle caused it to be overlooked when she was lifted into the carriage We did not find the knife for several minutes after we arrived. It was covered by her arm "

"Did you tell my wife?" asked Mr Oliver quickly

"She was present," the physician went on screamed and fainted Dr Seaver is attending her Her condition is—is not very good Where is your 'phone? I must notify the police"

Mr Oliver started to ask something else, paused and dropped back in his chair only to rise instantly and rush up the stairs Knight into whose face there had come a deadly calm stood stone-like while Dr Brander used the telephone At last the physician finished

"The calling of the police means that Eleanor did not

kill herself?" asked the young man

"It was murder," was the positive reply "She could not have stabbed herself. The knife went straight in, entering here," and he indicated a spot about four inches below his left arm "You see," he explained, "it took a very long blade to penetrate the heart"

There was dull despair in Knight's eyes He dropped down at a table with his head on his arms and sat motionless for a long time. He looked up once and asked a question

"Where is the knife?"

"I have it" replied Dr Brander "I shall turn it over to the authorities "

"Now," began The Thinking Machine in his small, irritated voice as Hutchinson Hatch, reporter, stopped talking and leaned back to listen, "all problems are merely sums in addition, when reduced to their primary parts. Therefore this one is simply a matter of putting facts together in order to prove that two and two do not sometimes but always make four."

sometimes but always make tour."

Professor Augustus S F X Van Dusen, scientist and logician, paused to adjust his head comfortably on the

cushion in the big chair, then resumed "Your statement of the case, Mr Hatch, gives me

these absolute facts Eleanor Oliver is dead, she died of a stab wound, a stiletto made this wound, it was in such a position that she could hardly have inflicted it herself, and Sylvester Knight, her fiance, is under arrest That's all we know isn't it?"

"You forget that she was stabbed while in a box at the opera," the reporter put in, "in the hearing of three or four thousand persons."

"I forget nothing," snapped the scientist "It does not appears merely that she was stabbed while in that fainted She might have been stabbed while in the fainted She might have been stabbed while in the fainted she might have been stabbed while in the carriage, or even after she was in her room."

these possibilities

Hatch's eyes opened wide at the bare mention of

"The presumption is of course," The Thinking Machine went on a little less aggressively, "that she was stabbed while in the box, but we can't put that down as an absolute fact to work on until we know it Remema, ber the stiletto was not found until she was in her room,"

This gave the reporter something new to think about and he was silent as he considered it. He saw that either of the possibilities suggested by the scientist was tenable, but on the other hand—on the other hand, and there his mind refused to work

"You have told me that Knight was arrested at the suggestion of Mr Oliver last night shortly after the police learned of the affair," The Thinking Machine went on, musingly "Now just what have you or the police learned as to him? How do they connect him with the affair?"

"First the police acted on the general ground of exclusive opportunity," the reporter explained. "Then Knight was arrested. The stiletto used was not an ordinary one. It had a blade of about seven inches and was very slender, but instead of a guard on it there was only a gold band. The handle is a straight, highly polished piece of wood. Around it, below the gold band where the guard should have been, there were threads as if it had been screwed into something."

"Yes, yes I see," the other interrupted impatiently "It was intended to be carried hidden in a walking cane, perhaps, and was screwed down with the blade in the stick Go on"

"Detective Mallory surmised that when he saw the stiletto," the reporter continued; "so after Knight was locked up he searched his rooms for the other part—the lower end—of the cane"

"And he found it, without the stiletto?"

"Yes, that's the chain against Knight First, exclusive opportunity, then the stiletto and the finding of the lower end of the cane in his possession"

"Exclusive fiddlesticks!" exclaimed the scientist

urntably. "I presume Knight dennes that he killed 993

Does he attempt to account for it?"

"And where is the stiletto that belongs to his cane? " Naturally" Miss Oliver?"

says he doesn't know" doesn't deny that the stiletto might be his He merely "He doesn't seem to know where it is-in fact he

exactly as he saw it those rare occasions when the scientist saw a problem "Thank you," remarked Hatch dryly. It was one of "Looks bad for him," he remarked at last. The Thinking Machine was silent for several minutes.

"Three weeks from next Wednesday." when?" "Miss Oliver and Mr. Knight were to be married-

"SəY" csne?" "I suppose Detective Mallory has the stiletto and

They found Detective Mallory snugly ensconced behind "Let's run over to police headquarters," he suggested The Thinking Machine arose and found his hat.

"How ?" inquired The Thinking Machine. our friend Knight all right." cionsness of conscious superiority. "We've nailed it to "Ah, gentlemen," he remarked graciously—the graa fat cigar with deatific satisfaction on his face

rooms and found the other part of the stiletto cane that? Then you know, too, how I searched Knight's arrest?" he asked "Exclusive opportunity and all "I suppose Hatch has told you the grounds of the around the dainty morsel—before he answered The detective gloated a little—twisted his tongue

Of course that was enough to convict, but early this evening the last link in the chain against him was supplied when Mrs Oliver made a statement to me"

The detective paused in enjoyment of the curiosity

he had aroused

"Well?" asked The Thinking Machine at last

"Mrs. Oliver heard—understand me—heard Knight threaten her daughter only a few minutes before she was found dead"

"Threaten her?" exclaimed Hatch, as he glanced at The Thinking Machine "By George!"

Detective Mallory tugged at his moustache com-

placently

"Mrs Oliver heard Knight first say something like, 'Please don't It won't be very long' Her daughter answered something she couldn't catch after which she heard Knight say positively, 'You mustn't If you do I shall do something desperate' or something like that Now as she remembers it the tone was threatening—it must have been raised in anger to be heard above the anvils Thus the case is complete"

The Thinking Machine and Hatch silently considered

this new point

"Remember this was only three or four minutes before she was found stabbed," the detective went on with conviction "It all connects up straight from exclusive opportunity to the ownership of the stiletto, from that to the threat and there you are"

"No motive of course?" asked The Thinking Ma-

chine

"Well, the question of motive isn't exactly clear but our further investigations will bring it out all right," the detective admitted. "I should imagine the motive

knowing where his stiletto is has no weight." to be Jealousy. Of course the story of Knight not

Detective Mallory was so charmed with himself that

he accepted Thinking Machine never smoked. generosity—and Hatch was so deeply thoughtful that he offered cigars to his visitors—an unusual burst of

The detective was delighted to oblige He watched " May I see the stiletto and cane?" he asked instead

the hollow stick and screwed the handle in. It fitted cane. Finally the scientist thrust the long blade into blood, and then as he examined the lower part of the man squinted at the slender blade, still stained with the scientist with keen satisfaction as that astute gentle-

"I don't suppose you'll try to put a crimp in me this perfectly. Detective Mallory smiled.

Thinking Machine, and with Hatch trailing he left head-"Very clever, Mr Mallory, very clever," replied The time?" he asked jovially.

" Wallory will swell like a balloon after that," Hatch quarters.

"Well, he might save himself that trouble," replied commented grimly.

of his companion The reporter glanced quickly into the inscrutable face the scientist crustily. "He has the wrong man,"

"Didn't Knight do it?" he asked

" Certainly not," was the impatient answer.

". I don't know." " Who did?"

Together they went on to the theatre from which Miss

Ohver box—a box which the Ohvers held only on alterwords with the manager gained permission to look at the Ohver had been removed the night before. There a few nate nights during the opera season. It was on the first balcony level, to the left as they entered the house

The first three rows of seats in the balcony ran around to and stopped at the box, one of four on that level and the furthest from the stage. The Thinking Machine pottered around aimlessly for ten minutes while Hatch looked on. He entered the box two or three times, examined the curtains, the partitions, the floor and the chairs after which he led the way into the lobby

There he excused himself to Hatch and stopped in the Manager's office. He remained only a few minutes, afterwards climbing into a cab in which he and Hatch were driven back to police headquarters.

CHYLLEK XVII

BELOKE MIDNICHL

AFTER some wire pulling and a good deal of red tape The Thinking Machine and his companion were permitted to see Knight They found him standing at the barred cell door, staring out with weary eyes and pallid face

The Thinking Machine was introduced to the prisoner

young man to talk.
"I have nothing to say," Knight declared belliger-ently "See my attorney."

you can have no possible objection," said The Thinking Machine. "It you do objection," said The Thinking

". Well?" demanded the prisoner don't answer."

"Have you ever travelled in Europe?"

this country three months ago "

Have you ever been interested in any other wo-

you?" Wave you ever been interested in any other worsen."

The prisoner stared at his questioner coldly. " No," he responded, emphatically " Your answer to that question may mean your free-

dom within a few hours," said The Thinking Machine quite calmly "Tell me the truth"

"That is the truth-on my honour"

The answer came frankly, and there came a quick gleam of hope in the prisoner's face

" Just where in Italy did you buy that stiletto cane?"

was the next question

" In Rome "

"Rather expensive?"

"Five hundred hra—that is about one hundred dollars"

"I suppose they are very common in Italy?"

"Yes, rather"

Knight pressed eagerly against the bars of his cell and gazed deeply but uncomprehendingly into the quiet squinting blue eyes

"There has never been any sort of a quarrel—serious

or otherwise between you and Miss Oliver?"

"Never," was the quick response

"Now, only one more question," said The Thinking Machine "I shall not ask it to hurt you" There was a little pause and Hatch waited expectantly "Does it happen that you know whether or not Miss Oliver ever had any other love affair?"

"Certainly not," exclaimed the young man, hotly "She was just a girl—only twenty, out of Vassar just a

few months ago and-and-"

"You needn't say any more," interrupted The Thinking Machine "It isn't necessary Make your plans to leave here tonight, not later than inidnight. It is now four o'clock. Tomorrow the newspapers will exonerate you"

The prisoner seemed almost overcome by his emotions

day" mechanically and he and Hatch went out. fingers in it with a slight look of annoyance, said " Good through the bars. The Thinking Machine laid his slender He started to speak, but only extended an open hand

"Do you actually anticipate that you will be able to the destination when the scientist gave it to the cauby. driven away. Hatch was thinking too deeply to note friend They climbed into the cab again and were condition in him when in the company of his scientific The reporter was in a sort of a trance, not an unusual

credulously. get Knight out of this thing so easily" he asked in-

" Certainly," was the response. "The problem is

proving it." solved except for one or two minor points. Now I am

"—tud—tuA"

"I will make it all clear to you in due time," inter-

They were both silent until the cab stopped. Hatch rupted the other

servant. reception hall. There the scientist handed a card to the lowed The Thinking Machine up the steps and into the glanced out and recognized the Oliver home. He fol-

"Tell Mr. Ohver, please, that I will only take a mo-

Mr. Ohver entered. The servant bowed and left them. A short wait and ment," he explained

mformation I think perhaps we may get a full light on said the scientist, " but if you can give me just a little "I am sorry to disturb you at such a time, Mr Ouver,"

thus unfortunate affau "

" First, let me ask you to confirm what I may say is Mr Ohver bowed. my knowledge that your daughter, Eleanor, knew this I will ask, too, that you do not mention his name now"

He scribbled hastily on a piece of paper and handed it to Mr Oliver An expression of deep surprise came into the latter's face and he shook his head

"I can answer that question positively," he said "She does not know him She had never been abroad and he has never been in this country until now"

The Thinking Machine arose with something nearly akin to agitation in his face, and his slender fingers worked nervously

"What?" he demanded abruptly "What?" Then, after a pause "I beg your pardon, sir It startled me a little But are you sure?"

"Perfectly sure," replied Mr Oliver firmly could not have met in any way "

For a long time The Thinking Machine stood squinting aggressively at his host with bewilderment plainly apparent in his manner Hatch looked on with absorbed interest Something had gone wrong, a cog had slipped, the wheels of logic had been thrown out of gear

"I have made a mistake, Mr Oliver," said The Thinking Machine at last "I'am sorry to have dis-

turbed you"

Mr Oliver bowed courteously and they were ushered out

"What is it?" asked Hatch anxiously as they once more took their seats in the cab

The Thinking Machine shook his head in frank annoyance

"What happened?" Hatch insisted

Hatch accepted that as a dismissal and went his way that I shall send for you later." "I'm going home and start all over again. It may be "I've made a mistake," was the petulant response.

"Did Miss Oliver have any sisters?" " Mr. Hatch?" called him to the 'phone. wonderingly. That evening The Thinking Machine

" How old is she?" with the murder story " thing about her in the afternoon papers in connection "Yes, one Her name is Florence There's some-", zəY "

". All right But what was the matter?" place." wire "Run by and bring Detective Mallory up to my " $\forall PP$ " came a long, aspirated sight of relief over the "I don't know-twenty-two or three"

Morking? " he asked a little curiously "What particular line is your friend Van Dusen when Hatch entered his office Detective Mallory was still delighted with himself " I was a fool, that's all Good bye "

property and forth across his small laboratory with In Work with Hatch They found The Thinking Machine ulilly theory but his own. In this mood, therefore, Milast he could deliver a blow which would oblitwind," he said loftily For once in his life he was con-"If it's anything that doesn't count Knight in it's all ".noite replied. "He has evidently reached some conclu-"He asked me to come by and bring you up," he The reporter shrugged his shoulders

his slender hands clasped behind his back. Hatch noted that the perplexed wrinkles had gone

"In adding up a column of figures," began the scientist abruptly as he sat down, "the oversight of even so trivial a unit as one will make a glaring error in the result. You, Mr Mallory, have overlooked a figure one, therefore your conclusion is wrong. In my first consideration of this affair I also overlooked a figure one and my conclusion toppled over just at the moment when it seemed to be corroborated. So I had to start over, I found the one"

"But this thing against Knight is conclusive," said

the detective explosively

"Except for the figure one," added the scientist

Detective Mallory snorted politely

"Now here is the logic of the thing," resumed The Thinking Machine "It will show how I overlooked the figure one—that is a vital fact—and how I found it"

He dropped back into the reflective attitude which was so familiar to his hearers, squint eyes turned upward and with his fingers pressed tip to tip. For several minutes he was silent while Detective Mallory vented his

impatience by chewing his moustache

"In the beginning," began The Thinking Machine at last, "we have a girl, pretty, young and wealthy in a box at the opera with her parents and her fiance. It would seem, at first glance, to be as safe a place as her home would be, yet she is murdered mysteriously. A stiletto is thrust into her heart. We will assume that her death occurred in the box; that the knife thrust came while she was in a dead faint. This temporary unconsciousness would account for the fact that she did not scream, as the heart would have been pierced by a

aginary, for a man to kill his sweetheart. In this case There is always to be found a motive, either real or imso we come to Sylvester Knight, her intended husband seemed no reason to suspect either the father or mother, " Now the three persons who were with her. There eueq sudden thrust before consciousness of pain was awak-941

started to say something, then thought better of it Detective Mallory raised his hand impressively and obened up." tunity. Therefore, an unlimited field of speculation was

Knight had the opportunity, but not the exclusive oppor-

"That's what," remarked the detective. statement of the case it looked black for Mr. Knight " alleged threats I admit all these things. On this There was the stiletto, the other end of the cane and the about him That's what you wanted to say, I believe continued, "your investigation, Mr. Mallory, drew a net "After Mr Knight's arrest," The Thinking Machine

"Oh, that !" exclaimed the detective. facturer's mark. I presume you noticed it? " with which Miss Oliver was killed bore an Italian manu-" Now a stiletto naturally suggests Italy. The blade

Detective Mallory could not readily place his tongue and showed a possible clue leading away from Mr. you would hardly notice it even now, but it was there Mr. Knight's room. This difference is so slight that the same wood as the part of the cane you found in was the fact that the handle of the stiletto was not of Then I saw the thing that did mean something Machine "I agree with you Still it was a suggestion. "Means nothing conclusively," added The Thinking

on words to fittingly express his disgust, so he remained silent

"When I considered what manner of man Mr Knight is and the singular nature of the crime," resumed the scientist, "I had no hesitancy in assuring Mr Hatch that you had the wrong man After we first saw you we examined the opera box. It was on the left of the theatre and separated from the next box by a latticed partition It was against this partition that Miss Oliver was leaning

"Remember. I saw the box after I examined the stiletto and while I was seeking a method by which another person might have stabbed her without entering the box I found it By using a stiletto without a guard it would have been perfectly possible for a person in the next box to have killed her by thrusting the blade through the lattice partition That is exactly what happened."

Detective Mallory arose with a mouth full of words They tumbled out in incoherent surprise and protest, then he sat down again The Thinking Machine was still staring upward.

"I then took steps to learn who was in the adjoining box at the time of her death," he continued quietly "The manager of the theatre told me it was occupied by Mr and Mrs Franklin Dupree, and their guest an Italian nobleman Italian nobleman! Italian stiletto! You see the connection

"Then we saw Mr Knight He assured me, and I believed him, that he had never had any other love affair, therefore no woman would have had a motive in killing Miss Oliver because of him He was positive, too, that Miss Oliver had never had any other love affair,

yet I saw the possibility of some connecting link between her and the nobleman—It was perfectly possible, indeed probable, that he would not know of it. At the moment I was convinced that there had been such an affair.

" Mr. Knight also told me that he bought his stiletto cane in Rome; and he paid a price that would seem to wood in the handle and lower part, and that he and Miss Oliver had never had any sort of a quarrel".

There was a little pause and The Thinking Machine

shifted his position slightly.

"Here I had a motive—Jealousy of one man who was thrown over for another, the method of death, through the lattice, a clue to the murderer in the stiletto, and overlooked a figure one. I saw that when Mr. Oliver nobleman whose name I wrote for him, that she could not have known him. The entire structure tumbled. I was nonplussed and a little rude, I fear, in my surprise I was nonplussed and a little rude, I fear, in my surprise. I have known him. The entire structure tumbled. I have known him. The entire structure tumbled. I have known him, a little rude, I fear, in my surprise in have known him. The entire structure tumbled. Then I had to reconsider the matter from the beginning in missing, yet the logic was right. It is always right "Themsing, yet the logic was right. It is always right."

"There are times when imagination has to bridge gaps caused by the absence of demonstrable facts. I considered the matter carefully, then saw where I had dropped the figure one. I 'phoned to Mr. Hatch to papers to which Mr. Hatch referred me told me the rest of it. It was Eleanor Oliver's sister who had the affair of it. It was Eleanor Oliver's sister who had the affair with the nobleman. That cleared it. There is the name of the murderer."

He laid down a card on which was scribbled this name

and address "Count Leo Tortino, Hotel Teutonic" Hatch and the detective read it simultaneously, then looked at The Thinking Machine inquiringly

"But I don't see it yet," expostulated the detective

"This man Knight--"

"Briefly it is this," declared the other impatiently "The newspapers carried a story of Florence Oliver's love affair with Count Tortino at the time she was travelling in Europe with her mother. According to what I read she jilted him and returned to this country where her engagement to another man was rumoured. That was several months ago. Now it doesn't follow that because the Count knew Florence Oliver that he knew or even knew of Eleanor Oliver.

"Suppose he came here maddened by disappointment and seeking revenge, suppose further he reached the theatre, as he did, while the anvil chorus was on, the party started into the wrong box and the usher mentioned casually that the Olivers were in there. We presume he knew Mrs. Oliver by sight, and saw her. He might reasonably have surmised, perhaps he was told, that the other woman was Miss. Oliver—and Miss. Oliver meant to him the woman who had jilted him. The lattice work offered a way, the din of the music covered the act—and that's all. It doesn't really appear—it isn't necessary to know—how he carried the stiletto about him, or why."

The detective was gnawing his moustache He was silent for several minutes trying to see the tragedy in this new light.

"But the threats Knight made?" he inquired finally

" Has he explained them?"

"Oh, he said something about the girl being ill and

take the word of an accused man at face value occasion-Mallory, never believe the simple things If you would The Thinking Machine. "Men of your profession, Mr. "But I dare say it's perfectly correct," commented to do something desperate. Silly explanation I call it " her, he says, that she mustn't go, because he would have wanting to go home, and he urged her not to. He told 180

deny anything " to the Teutonic and see Count Tortino He will hardly by midnight It is now ten Suppose you run down "I promised Mr Knight that he would be free ally you would have less trouble". There was a pause,

Eleanor Oliver. fessed the singular error which had led to the murder of bullet hole in his temple. A note of explanation conroom. He was lying face down across a bed with a Detective Mallory and Hatch found the Count in his

tree. Knight walked out of his cell a heartbroken man, but It was three minutes of midnight when Sylvester

CHAPTER XVIII

THE MISSING NECKLACE

MR BRADLEE CUNNYNGHAM LEIGHTON was clever His most ardent enemies admitted that Scotland Yard, for instance, not only admitted it but insisted on it. It wasn't any half hearted insistence, either, for in the words of Herbert Conway, one of the Yard's chief operators, he was smooth—"so smooth that he made ice feel like sandpaper." Whether or not Mr Leighton was aware of this delicate compliment does not appear. It was perfectly possible that he was, although he had never mentioned it. He was a well bred gentleman and was aware of many things that he never mentioned.

In his person Mr Leighton had the distinguished honour of closely resembling the immaculate villain of melodrama. In his mental attainments, however, Scotland Yard gave him credit for being a genius—far beyond the cigarette smoking mummer of crime who is always transparent and is inevitably caught. Mr Leighton had never been caught. Perhaps that was why Scotland Yard insisted on his cleverness and was prepared to argue the point.

Mr Leighton went everywhere At those functions where the highest in the social world met, there was Mr Leighton He was on every matron's selected list of

guests, a charming addition to any gathering Scotland Yard knew this. Of course it may have been only the merest chance that he was always present at those functions where valuable Jewels had been "lost" or "mislaid," Yet Scotland Yard did not regard it as chance. That it did not was another compliment to chance. That it did not was another compliment to

From deep down in its innermost conscience Scotland, if not the actual vital instrument, in a long series of baffling jewel robberies. There was a finesse and delicacy—not to mention regularity—about these robberies that annoyed Scotland Yard. Yet believing all this Scotland Yard had never been so indiscreet as to mention the matter to Mr Leighton. As a matter of fact Scotland Yard had never seen its way clear to mentioning it to anyone.

Conway had some ideas of his own about Mr. Leighton whom he exalted to a position that would have surprised if not flatfered him Conway perhaps, more nearly expressed the opinion of Scotland Yard in a few brief remarks than I could at greater length,

"He's a crook and the cleverest in the world," he said of Mr. Leighton, almost enthusiastically. "He got the Hemingway jewels, the Cheltenham bracelet and the Quez shiners all right. I know he got them. But that doesn't do any good—merely knowing it I can't put a finger on him because he's too blooming smooth. I think I've got him and then—I haven't."

This was before the Varron necklace affair When that remarkable episode came to be known to Scotland Yard Conway's admiration for Mr. Leighton increased immeasurably He knew that Leighton was the re-

sponsible one—he knew it in his own head and heart but that was all He gnawed his scrubby moustache fiercely and set to work to prove it, feeling beforehand that it was a vain task

The absolute simplicity of the thing—and in this it was like the others—was its most puzzling feature Lady Varron had tendered a reception to the United States Ambassador at her London house She had gathered about her a most distinguished company There were representatives of England, France and Russia, there were some of the most beautiful women of the continent, there were two American Duchesses, there were a chosen few of the American colony-and Mr Leighton It may be well to repeat that he went everywhere

Lady Varron on this occasion wore the famous Varron necklace Its intrinsic value was said to be £40,000, associations made it priceless. She was dancing with the American Ambassador when she slipped on the smooth floor and fell, dragging him down with her was an undignified, unromantic thing, but it happened Mr Leighton chanced to be one of those nearest and rushed to her assistance. In an instant Lady Varron and the Ambassador were the centre of a little group It was Mr Leighton who lifted Lady Varron to her feet

"It's nothing," she assured him, smiling uncertainly "I was a little awkward, that's all."

Mr Leighton turned to assist the Ambassador but found him standing again and puffing inordinately, then turned back to Lady Varron

"You dropped your necklace" he remarked blandly "My necklace?"

be seen Lady Varron controlled herself admirably. group stood back to look for the Jewel. It was not to and she paled a little as Mr Leighton and others of the Lady Varron's white hand flew to her bare throat,

"It must have fallen somewhere," she said finally.

" Are you sure you had it on?" asked another guest

"Oh, yes," she replied positively, "but I may have solicitously

"I noticed it just before you—we—fell," said the dropped it somewhere else."

But it wasn't In that respect—that is visible non-Ambassador "It must be here,"

.bnuoi had dropped the bracelet. That was all It was never at night with the Honourable Miss Cheltenham and she Leighton had, on that occasion, strolled out on the lawn existence—it resembled the Cheltenham bracelet. Mr.

guests would not be amiss. He did not say it in so courteously, tactfully, that a personal search of her Leighton, who still stood beside Lady Varron, intimated barrassment and mutual suspicion, and that finally Mr. men and women stared at each other in bewildered emlace It is sufficient to say that it was not found, that details of what immediately followed the loss of the neck-In this Varron affaur it would be useless to go into

loss marvellously well. sud the reception proceeded Lady Varron bore her tegrity was involved. But the search was not made which were foremost when a question of personal in-Ambassador, a Democratic individual with honest ideas Mr. Leighton was seconded heartily by the American many words but the others understood

"She's a brick," was the audible compliment of one of

the American Duchesses whose father owned \$20,000,000 worth of soap somewhere in vague America. "I'd have had a fit if I'd lost a necklace like that"

It was not until next day that Scotland Yard was notified of Lady Varron's loss

"Leighton there?" was Conway's first question.

"Yes"

"Then he got it," Conway asserted positively "I'll get him this time or know why"

Yet at the end of a month he neither had him, nor did he know why He had intercepted messengers, he had opened letters, telegrams, cable dispatches, he had questioned servants, he had taken advantage of the absence of both Mr Leighton and his valet to search his exquisite apartments. He had done all these things and more—all that a severely conscientious man of his profession could do, and had gnawed his scrubby moustache down to a disreputable ragged line. But of the necklace there was no clue, no trace, nothing

Then Conway heard that Mr Leighton was going to the United States for a few months

"To take the necklace and dispose of it," he declared out of the vexation of his own heart "If he ever gets aboard ship with it I've got him—either I've got him or the United States customs officials will have him"

Conway could not bring himself to believe that Mr Leighton, with all his cleverness, would dare try to dispose of the pearls in England and he flattered himself that Leighton could not have sent them elsewhere—too close a watch had been kept.

It transpired naturally that when the Boston bound liner Romanic, sailed from Liverpool four days later not only was Mr Leighton aboard but Conway was there

Leighton did not know him. He knew Leighton, but was secure in the thought that

ing, he sauntered up and joined him in contemplation ımmaculate gentleman alone, leaning on the rail, smokidea to know Leighton casually so when he noticed that He was deginning to think that it might not be a bad On the second day out he was disabused on this point

"Beautiful weather," Conway remarked after a long of the infinite ocean,

enjod s junket like this?" smiled. "I should think you Scotland Yard men would "Yes," replied Leighton as he glanced around and tıme,

show astonishment, whatever he might have felt. In-Conway didn't do any such foolish thing as start or

stead he smiled pleasantly.

vacation" "I've been working pretty hard on that Varron affair," he said frankly. "And now I'm taking a little

lazily. "Indeed? I happened to be the one to notice ". Oh, that thing at Lady Varron's " inquired Leighton

"Yes, I know it," responded Conway, grimly. that the necklace was gone"

the sinister green waters, and smoked hours Conway stared at the phosphorescent points in took a hand at " bridge" in the smoking room. For played shuffle-board together. That evening Leighton cratic one. They smoked together, walked together and found Leighton an agreeable companion, and a demo-The conversation drifted to other things. Conway

100T scoundrel on earth, and if he did not I'm the biggest " If he did it," he remarked at last, " he's the cleverest

Six bells—eleven o'clock struck. The deck was deserted. Conway stumbled along through the dark toward the smoking room. Inside he saw Leighton still at play. As he paused at the open door he heard Leighton's voice.

"I'll play until two o'clock, not later," it said

Conway made up his mind instantly. He turned, retraced his steps along the deck to Leighton's room where he stopped. He knew Leighton had not burdened himself with a valet and thought he knew why, so without hesitation he drew out several keys and fumbled at the lock. It yielded at last and he stepped inside the state room, closing the door. His purpose was instantly apparent. It was to search

Now Conway had his own ideas of just how a search should be conducted. First he took Leighton's wearing apparel and patted and pinched it inch by inch, he squeezed up neckties, unrolled handkerchiefs, examined shirts and crumpled up silken hosiery. Then he took the shoes—half a dozen pairs. He had been suspicious of shoes since he once found a dozen diamonds concealed in false heels. But these heels weren't false

Next, still without haste or apparent disappointment, he turned his attention to the handbag, the suit case and the steamer trunk all of which he had emptied Such things had been known to have false bottoms and secret compartments. These had none. He satisfied himself absolutely on this point by every method known to his art.

In due time his examination came down to the room itself. He unmade the bed and closely felt of and scrutinized the mattress, sheets, blankets, pillows and coverlid. He took the three drawers from the dressing

cabinet and looked behind them. He turned over several English newspapers and shook them one by one. He peered into the water pitcher and fumbled around the plumbing in the tiny bath room adjoining. He examined the carpet to see if anything had been hidden beneath it Finally he climbed on a chair and from this elevated position looked for a crack or crevice where a necklace or unset pearls could be hidden.

"There are still three possibilities," he told himself at the end as he carefully restored the room to its previous condition "He might have left them in a package in the ship's safe but that's improbable—too risky, he still more improbable, or he might have them on his person. That is more than likely."

So Conway went out, extinguishing the light and locking the door behind him. He stepped into his own state room a moment and took a mouthful of whiskey which he spat out again. But it must have had some deep, potent effect for a few minutes later when he appeared in the smoking room he was in a lamentable state of intoxication and exhaled whiskey noticeably his was a mandlin, thick-tongued condition. Leighton glanced up at him with well bred reproach.

It may have been only accident that Conway strumbled it may have been only accident that Conway strumbled.

It may have been only accident that Conway stumbled over Leighton's feet and noted that he wore flat-soled, loose slippers without heels, and also accident that he embraced him with exaggerated affection as he struggled to recover his equilibrium.

Be those things as they may Leighton excused himself good-naturedly from the bridge party and urged Conway to bed Conway would only agree on condition that Leighton would assist him. Leighton consented cheerfully and they left the smoking room together, Conway clinging to him as the vine to the oak

Half way down the deck Conway stumbled and fell despite the friendly supporting arm, and in his effort to save himself his hands slid all the way down Leighton's shapely legs. Then he was deposited in his state room and Leighton returned to his cards smiling.

"And he hasn't got them on him," declared Conway enigmatically to the bare walls He was not intoxicated

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It was an easy matter next day for him to learn that Leighton had left nothing in the ship's safe and that his four trunks in the hold were inaccessible, being buried under hundreds of others. Whereupon Conway sat down to wait and learn what new and original ideas of searching Uncle Sam's Customs officers had invented

At last came a morning when the wireless telegraph operator aboard picked up a signal from shore and announced that the Romanic was less than a hundred miles from Boston light Later Conway found Leighton leaning on the rail, smoking and gazing shoreward

It was three hours or so after that that several passengers noticed a motor boat coming toward them Leighton watched it with idle interest. Finally it circled widely and it became apparent that it was coming alongside the now slow moving liner. When it was only a hundred feet off and the liner was barely creeping along, Leighton grew suddenly interested.

"By Jove," he exclaimed, then shouted "Hello,

Harry!"

"Hello Leighton," came an answering shout "Heard you were aboard and came out to meet you"

There was a rapid fire of uninteresting pleasantries as

Leighton stared back for a moment, smiled, nodded pleasantly and strolled up the dock chatting carelessly with Harry Cheshire. Conway made no attempt to follow them It wasn't worth while—nothing was worth while any more.

"But he did get them and he's got them now," he told himself savagely, "or he has disposed of them in some way that I can't find,"

CHAPTER XIX

MASTER OF HIS PROFESSION

THE Thinking Machine did not seem to regard the problem as at all difficult when it came to his attention a couple of days later. Hutchinson Hatch, reporter, brought it to him. Hatch had some good friends in the Customs Office where Conway had told his story. He learned from them that that office had refused to have anything to do with the case insisting that the Scotland Yard man must be mistaken.

Crushed in spirit, mangled in reputation and taunted by Leighton's final words Conway took a desolate view of life. Momentarily he lost even that bull-dog tenacity which had never before faltered—lost it all except in so far as he still believed that Leighton was the man. It was about this time Hatch met him. Would he talk? He was burning to talk, caution was a senseless thing anyway. Then Hatch took him gently by the hand and led him to The Thinking Machine.

Conway unburdened himself at length and with vitriolic emphasis. For an hour he went on while the scientist leaned back in his chair with his great yellow head pillowed on a cushion and squinted aggressively at the ceiling. At the end of the hour The Thinking

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the motor boat slid in under the Romanic's lee and bobbed up and down in her wash. The man aboard stood up with a package of newspapers in his hand.

"Here are some American papers for you," he called. He flung the bundle and Leighton caught it, left the rail and passed into his state room. He returned after a moment with a bundle of European papers—those Conway had previously seen.

"Catch," he called. "There's something in these that will interest you."

The man in the small host courbt the man in the

The man in the small boat caught the package and dropped it carelessly on a seat.

Then, suddenly, Conway awoke.
"There goes the necklace," he told himself with a start. A quick grasping movement of his hands attracted into the blazing eyes of the Scotland Yard man. The motor boat with a parting shot of "I'll meet you on the wharf" sped away.

Thoughts began to flow rapidly through Conway's fertile brain. Five minutes later he burst in on the ashore. Then from the bow rail he watched the motor off about two miles and remained relatively in that position for nearly all the forty miles into Boston Harbour. It spoke no other craft, passed near none in fact while in Conway's sight, which was until it disappeared in Boston Harbour. It shoke no other craft, passed near none in fact while in Conway's sight, which was until it disappeared and hour later the Romans.

An hour later the Romanic was warped in and tied up. Conway was the first man off. He went straight to a man who seemed to be waiting for him. "Did you search the motor boat?" he demanded.

"Yes," was the reply "We nearly tore it to pieces, yen took it out of the water We also searched the han on her, Harry Cheshire You must have been ustaken"

"Are you sure she spoke no one or got rid of the

ewels to another vessel?"

"She didn't go near another vessel," was the reply I met her at the Harbour mouth and came in with her "For an instant Conway's face showed disappointment, then came animation again. He was just beginning to

get really interested in the affair
"Do you know the Customs officer in charge?" he

asked.

" Yes "

" Introduce me"

There was an introduction and the three men spoke aside for several minutes. The result of it was that when Leighton sauntered down the gang plank he was invited into a private office. He went smilingly and submitted to a search of his person without anger or the slightest trace of uneasiness. As he came out Conway was standing at the door.

"Are you satisfied?" Leighton asked

"No," blazed Conway, savagely

"What? Not after searching me twice and my state room once?"

Conway didn't answer He didn't dare to at the moment, but he stood by when Leighton's four trunks were taken from the hold, and he saw that they were searched with the same minute care that he had given to the state room. At the fruitless end of it he sat down on one of the trunks and stared at Leighton in a sort of admiration.

"How many stones were in the necklace," the scienknew, except Leighton way knew and knew as much of Leighton as any man Machine knew as much of the Varron problem as Con-

" Was the man in the motor boat—Harry Cheshire "One hundred and seventy-two," replied Conway. fist asked.

most men of his profession he wanted action; sitting not knowing, was only hopefully curious But like come from that wonderful analytical brain; Conway thing tangible, something that led somewhere, would impatiently Hatch knew, from the past, that somefingers while Conway and the reporter sat staring at him For a long time The Thinking Machine twiddled his T. Yes, in speech, manner and appearance." Aon csji pim—su Englishman ? "

boat. That one act seems to have been a senseless one, That is the throwing of the newspapers into the motor There is only one thing that indicates that he might have the pearls, therefore did not bring them with him. as a matter of fact, indicate that Leighton did not take "you haven't proven anything. Your investigations, "You see, Mr Conway," said the scientist at last, down and thinking didn't seem to get anywhere.

and is perfectly innocent," added The Thinking Ma-"Or unless he was amusing himself at your expense interrupted the Scotland Yard man "Unless the pearls were concealed in the bundle,"

view of it we must base it on an assumption which has no he has merely made a fool of you If we take any other cent man and discovered that you were on his track that chine "It is perfectly possible that if he were an innoestablished fact to support it We will have to dispose of every other person who *might* have stolen the necklace and pin it down to Leighton Further, we will have to assume out of hand that he brought the jewels to this country"

The Scotland Yard man was getting interested.

"That is not good logic, yet when we assume all this for our present purposes the problem is a simple one And by assuming it we prove that your search of the state room was not thorough. Did you, for instance, happen to look on the *under* side of the slats in the berth? Do you *know* that the necklace, or its unset pearls, did not hang down in the drain pipe from the water bowl?"

Conway snapped his fingers in annoyance. These were two things he had not done

"There are other possibilities of course," resumed The Thinking Machine, "therefore the search for the necklace was useless. Now we must take for granted that, if they came to this country at all, they came in one of those places and you overlooked them. Obviously Mr Leighton would not have left them in the trunks in the hold. Therefore we assume further that he hid them in his state room and threw them into the motor boat.

"In that event they were in the motor boat when it left the Romanic and we must believe they were not in it when it docked. Yet the motor boat neither spoke nor approached any other vessel. The jewels were not thrown into the water. The man Cheshire could not have swallowed one hundred and seventy-two pearls—or any great part of them—therefore, what have we?"

"Instead of nothing we have the answer," replied The " Nothing," responded Conway promptly "That's what's the matter I've had to give it all up." 961

lewels now, assuming of course that Leighton brought grve you the name and address of the man who has the Thinking Machine tartly "Let's see Perhaps I can

греш "

" No, but he's a good deal of a wonder," replied Hatch "Is he anything of a joker?" he asked with a queer expression on his face room Conway turned and stared at Hatch inquiringly He srose suddenly and passed into the adjoining

" If he went into that room and said he'd bring back lace?" demanded Conway in bewilderment get the name and address of the man who has the neckthing about it and all he's got to do is to go in there and this thing for months and months without learning any-"Do you mean to say that I have been working on

bell in the next room, then for a long time the subdued They were interrupted by the tinkling of the telephone reporter. "I know him" the Pacific Ocean in a tea cup I'd believe him," said the

ung, Scituate, Mass " Hatch The reporter read thus " Henry C H Manderscrippjed something on a card which he handed to he appeared in the door again. He paused there and the 'phone It was twenty-five or thirty minutes before hum of the scientist's irritable voice as he talked over

ment dictates. You must search this man's house. L way, let him see the surroundings and act as his judgmatter of fact "Mr Hatch, you accompany Mr Conthe jewels now," said The Thinking Machine quite as a "There is the name and address of the man who has

don't think you'll have much trouble finding them because they cannot foresee their danger. The pearls will be unset and you will find them possibly in small oil-silk bags, no larger than your little finger. When you find them take steps to apprehend both this man and Leighton. Call Detective Mallory when you get them and bring them here."

"But—but—" stammered Conway

"Come on," commanded Hatch

And Conway went.

The sleepy little old town of Scituate sprawls along two or three miles of Massachusetts coast, facing the sea boldly in a series of cliffs which rise up and sink away with the utmost suddenness. The town was settled two or three hundred years ago and nothing has ever happened there since. It was here, atop one of the cliffs, that Henry C. H. Manderling had lived alone for two or three months. He had gone there in the Spring with other city folks who dreamed their Summers away, and occupied a queer little shack through which the salt breezes wandered at will. A tiny barn was attached to the house

Hutchinson Hatch and the Scotland Yard man found the house without difficulty and entered it without hesitation. There was no one at hand to stop them, or to interfere with the search they made. The simple lock on the door was no obstacle. In less than half an hour the skilful hands of the Scotland Yard man had turned out a score or more small oil-silk bags, no larger than his little finger. He ripped one open and six pearls dropped into his hand.

"They're the Varron pearls all right," he exclaimed

triumphantly after an examination. He dropped them 861

door opened and crouching back in the shadow they heard some one meerted a key in the lock After a moment the He had heard a step at the door, then two voices as "Sh-h-h-h!" warned Hatch suddenly. sil into his pocket

ment that Conway stepped out and faced them. two men enter It was just at that psychological mo-

"Tie up that chap there," commanded Conway on the floor and the front door slammed There was a scurrying of feet, the clatter of a revolver step forward and again swung his great right arm another shot. Conway staggered a little, took another his arm swing and one of the men fell. Then came close to his head. Conway leaped forward, Hatch saw but he heard a shot and a bullet whistled uncomfortably Hatch could not see beyond the Scotland Yard man "I want you, Leighton," he said calmly.

lay and ran out conscions Hatch bound him hand and foot where he A blow on the point of the chin had rendered him unthe senseless man on the floor It was Harry Cheshire the veranda and leap off He turned his attention to He opened the door and Hatch heard him run along

" Not this time, Mr Conway," came Leighton's voice to where it had been, it was now fifty yards out instant later it shot out into the water Conway ran on boat lay. Hatch saw a man climb into the boat and an Conway was racing down the cliff to where a motor

he was pale, very pale more then returned to Hatch The reporter saw that The Scotland Yard man stared after it a minute or as the boat sped on. "Did you bind him?" Conway asked.

"Yes," Hatch responded "Are you wounded?"

"Sure," replied the Scotland Yard man. "He got me in the left arm. I never knew him to carry a revolver before. It's lucky those two shots were all he had."

* * * * *

The Thinking Machine put the finishing touches on the binding of Conway's wound—it was trivial—then turned to his other visitors. These were Harry Cheshire, or Manderling, and Detective Mallory to whom he had been delivered a prisoner on the arrival of Hatch and Conway in Boston. A general alarm had been sent out for Leighton.

Conway apparently didn't care anything about the wound but he had a frank curiosity as to just what The Thinking Machine had done and how those things which had happened had been brought to pass

"It was all ridiculously simple," began the scientist at last in explanation. "It came down to this. How could one hundred and seventy-two pearls be transferred from a boat forty miles at sea to a safe place ashore? The motor boat did not speak or approach any other vessel, obviously one could not throw them ashore and I have never heard of such a thing as a trained fish which might have brought them in. Now what are the only other ways they could have reached shore with comparative safety?"

He looked from one to another inquiringly Each in turn shook his head. Manderling, or Cheshire, was silent

"There are only two possible answers," said the

scientist at last. "One, a submarine boat, which is improbable, and the other biids—homing pigeons."

Manderling "And I did notice dozens of pigeons

about the place at Scituate."

"The jewels were on the ship as you suspected," tresumed the scientist, "unset and probably suspended in a long oil-silk bag in the drain pipe I mentioned in a long oil-silk bag in the drain pipe I mentioned newspapers. Two miles away from the Romanic they were tastened to homing pigeois and one by one the pigeois were released. You, Mr. Conway, could see the boat clearly at that distance but you could not postly see a bird rise from it. The birds went to their pigeois are generally kept in automatically closing compartments and each pigeoin was locked in as it arrived. Mr. Manderling here and Mr. Leighton removed the pearls at their leisure.

"Of course with homing pigeons as a clue we could get somewhere," The Thinking Machine went on after a moment "There are numerous homing pigeon associations and fanciers and it was possible that one of these would know an Englishman who had, say, twenty-hose or fifty birds, and presumably lived somewhere near Boston One did know He gave me the name of Henry C H Manderling Harry is a corruption of Henry and—Henry C? Henry Cheshire, or Harry Cheshire—the name Mr Manderling gave when he was searched at the wharf."

"Can you explain how Leighton, was able to get "Can you explain how Leighton, was able to get the necklace in the first place?" asked Conway curiously the necklace in the first place?" asked Conway curiously

"Just as he got the other things," replied The Think-

ing Machine, "by boldness and cleverness Suppose, when Lady Varron fell, Leighton had had a stout clastic fastened high up at the shoulder, say, inside his coat sleeve and the end of this elastic had a clamp of some sort, and was drawn down until the elastic was taut, and fastened to his cuff? Remember that this man was always waiting for an opportunity, and was always prepared to take advantage of it. Of course he did not plan the thing as it happened.

"Say that the necklace dropped off as he leaned over to help Lady Varron In the momentary excitement he could, under their very noses, have fastened the clamp to the necklace Instantly the jewels would have disappeared up his sleeve and he could have submitted to any sort of perfunctory search of his pockets as he

suggested."

"That's a trick professional gamblers have to get rid

of cards," remarked Detective Mallory

"Oh, it isn't new then?" asked The Thinking Ma-"Immediately he left the ball-room he hid this necklace as he had hidden other jewels, and before you knew of the theft, wrote and mailed full directions to Mr Manderling here what to do You did not intercept any letters, of course, until after you knew of this theft Leighton had perhaps had other dealings with Mr Manderling in other parts of the world, when he was not so closely watched as in this particular instance I daresay, however, he had them all planned carefully for fear the very thing that did happen in this case would happen"

Half an hour later Conway shook hands with The Thinking Machine, thanked him heartily and the little party dispersed.

THE PROFESSOR OX THE CASE.

going out.
"You see," remarked The Thinking Machine, 'gentlemen of your profession use too little common sense. Remember that two and two always make four—not

"I had given it up," Conway confessed as he was

some times but all the time "Leighton has not yet been caught.

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CHAPTER XX

THE PHANTOM MOTOR

Two dazzling white eyes bulged through the night as an automobile swept suddenly around a curve in the wide road and laid a smooth, glaring pathway ahead. Even at the distance the rhythmical crackling-chug informed Special Constable Baker that it was a gasoline car, and the headlong swoop of the unblinking lights toward him made him instantly aware of the fact that the speed ordinance of Yarborough County was being a little more than broken—it was being obliterated

Now the County of Yarborough was a wide expanse of summer estates and superbly kept roads, level as a floor, and offered distracting temptations to the dangerous pastime of speeding. But against this was the fact that the county was particular about its speed laws, so particular in fact that it had stationed half a hundred men upon its highways to abate the nuisance. Incidentally it had found that keeping record of the infractions of the law was an excellent source of income

"Forty miles an hour if an inch," remarked Baker to himself.

He arose from a camp stool where he was wont to make himself comfortable from six o'clock until midnight on watch, picked up his lantern, turned up the

light and stepped down to the edge of the road. He always remained on watch at the same place—at one end of a long stretch which autoists had unanimously dubbed Trap. The Trap was singularly tempting—a perfectly macadamized road bed lying between two tall stone walls with only enough of a sinuous twist in it to make each end invisible from the other. Another man end of The Trap and there was telephonic communication between the points, enabling the men to check each other and incidentally, if one failed to stop a car or get its number, the other would. That at least was the get its number, the other would. That at least was the theory

So now, with the utmost confidence, Baker waited beside the road. The approaching lights were only a couple of hundred yards away At the proper instant he would raise his lantern, the car would stop, its occumite to its general fund for making the roads even mate to its general fund for making the roads even the cars didn't stop. In that event it was part of the past, and reference to the monthly automobile register would give the name of the monthly automobile register would give the name of the monthly automobile register would give the name of the monthly automobile register would give the name of the monthly automobile register would give the name of the monthly automobile register.

Without the slightest diminution of speed the car came hurtling on toward him and swung wide so as to the psychological instant Baker stepped out into the road and waved his lantern "Stop!" he commanded.

The auto was almost upon hum before he leaped out of

lantern in the distance coming slowly toward him it his pace a little As he turned a gentle curve he saw a the matter the more anxious he became and he increased grass close to the wall The more Baker considered was no shrubbery of any sort, only a narrow strip of broken line of the cold, stone walls on each side There end. The feeble rays of the lantern showed the un-90z

", Yes," came the hallooed response within distance. "That you, Bowman "." "Hello!" called Baker, when the lantern came

was evidently being carried by some one who was look-

ing carefully along each side of the road.

" What're you looking for?" he asked tor the other constable was quickly changed to currosity The lanterns moved on and met Baker's solicitude

seen snything" an accident so I walked along looking for it Haven't through my end and I thought perhaps there had been "That auto," replied Bowman "It didn't come

gone through" pack my way and I haven't passed it so it must have in smazement "Why it must have It didn't come "Drqu,t come through your end?" repeated Baker

road. There hasn't been a car through my end in an "I was on the lookout for it, too, standing beside the "Well, it didn't," declared Bowman conclusively

"How much did they give you to let 'em by ?" he picion glowed from the keen, avaricious eyes of Baker and for an instant they stared each at the other. Susrays fell full upon the face of Special Constable Bowman Special Constable Baker raised his lantern until the

seked.

"Give me?" exclaimed Bowman, in righteous indignation "Give me nothing I haven't seen a car"

A slight sneer curled the lips of Special Constable Baker

"Of course that's all right to report at headquarters," he said, "but I happened to know that the auto came in here, that it didn't go back my way, that it couldn't get out except at the ends, therefore it went your way." He was silent for a moment "And whatever you got, Jim, seems to me I ought to get half."

Then the worm—1. e, Bowman—turned. A polite curl appeared about his lips and was permitted to show through the grizzled moustache

"I guess," he said deliberately, "you think because you do that everybody else does I haven't seen any autos"

"Don't I always give you half, Jim?" Baker demanded, almost pleadingly

"Well I haven't seen any car and that's all there is to it If it didn't go back your way there wasn't any car" There was a pause, Bowman was framing up something particularly unpleasant. "You're seeing things, that's what's the matter"

So was sown discord between two officers of the County of Yarborough After awhile they separated with mutual sneers and open derision and went back to their respective posts Each was thoughtful in his own way At five minutes of midnight when they went off duty Baker called Bowman on the 'phone again

"I've been thinking this thing over, Jim, and I guess it would be just as well if we didn't report it or say anything about it when we go in," said Baker slowly "It seems foolish, and if we did say anything about it it would give the boys the laugh on us"

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didn't even look around posts. Baker stopped at his end of The Trap, Bowman But they walked along side by side to their respective Special Constable Bowman were strained on the morrow Relations between Special Constable Baker and "Just as you say," responded Bowman.

closed teeth "I'll get it this time," he muttered grunly, between He recognized them—the mysterious car of the night feet It was a pair of dazzling white eyes, far away when he saw something that brought him quickly to his he was staring down the road which led into The Trap had been warned by Baker At a few minutes past nine had gone through The Trap at moderate speed and one Seven, eight, nine o'clock passed Two or three cars "I had 'em open last nıght," was the disgusted retort Baker called as a last word. "You'd better keep your eyes open to-night, Jim,"

trying to read the number He could see there was a Safely out of its way Baker turned and stared after it, prevent running down the Special Constable whisked by as the chauffeur gave it a dexterous twist to the psychological mstant Baker jumped. The auto the car didn't lessen speed, merely rushed on Again at night At a hundred yards Baker began to shout Still thing, to be travelling even faster than on the previous and began to swing the lantern The auto seemed, if anyyards away Baker planted himself in the middle of the road Then when the onrushing car was a full two hundred

swaying car conspired to defeat him. But he did see but he could not make out the figures Dust and a number because a white board swung from the tail axle that there were four persons in the car dimly silhouetted against the light reflected from the road. It was useless, of course, to conjecture as to sex for even as he looked the fast receding car swerved around the turn and was lost to sight.

Again he rushed to the telephone, Bowman responded promptly

"That car's gone in again," Baker called. "Ninety miles an hour Look out!"

" I'm looking," responded Bowman

"Let me know what happens," Baker shouted.

With the receiver to his ear he stood for ten or fifteen minutes, then Bowman hallooed from the other end

"Well?" Baker responded "Got'em?"

"No car passed through and there's none in sight," said Bowman

"But it went in," insisted Baker

"Well, it didn't come out here," declared Bowman "Walk along the road till I meet you and look out for it"

Then was repeated the search of the night before When the two men met in the middle of The Trap their faces were blank—blank as the high stone walls which stared at them from each side

"Nothing!" said Bowman

"Nothing!" echoed Baker

Special Constable Bowman perched his head on one side and scratched his grizzly chin

"You're not trying to put up a job on me?" he inquired coldly "You did see a car?"

"I certainly did," declared Baker, and a belligerent tone underlay his manner "I certainly saw it, Jim, and if it didn't come out your end, why—why——"

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suddenly. mobile was a strange sort of bird, or—and he stopped sky above Perhaps, he thought whimsically, the auto-At this point he involuntarily glanced up at the blue so the automobile didn't go down through the earth day Hatch failed, too, to find any holes in the road phantom auto could not be hidden any time, night or a strip of scrupulously cared for grass, therefore the Hatch saw no shrubbery along the road, nothing but

"By George I" he exclaimed. "I wonder if-"

Together they rehearsed the strange points of the end of The Trap that evening about seven o'clock mation when he joined Special Constable Baker at his hut in turn But he didn't seem overladen with inforwere at the time unoccupied, then to cottage, cabin and house, the Stocker house, the Rogers house both of which matically making enquiries. He went from house to And the remainder of the afternoon he spent syste-

" It'll come all right," said Baker after a long silence, every car that went into the Trap too, he called Bowman, in this manner accounting for And each time Baker shook his head And each time, pove in sight Hatch glanced at Baker questioningly Occasionally an auto bowled along and each time as it nng closed in a certain awed tone crept into their voices was the only bright spot in sight As the chill of evenfinally the darkness was so dense that Baker's lantern mystery and as the shadows grew about them until

They sat still and smoked After awhile two dazzling toward us I'd know its two lights in a thousand " " and I'll know it the minute it rounds the curve coming

white lights burst into view far down the road and Baker, in excitement, dropped his pipe

"That's her," he declared "Look at her coming!"

And Hatch did look at her coming. The speed of the mysterious car was such as to make one look. Like the eyes of a giant the two lights came on toward them, and Baker perfunctorily went through the motions of attempting to stop it. The car fairly whizzed past them and the rush of air which tugged at their coats was convincing enough proof of its solidity. Hatch strained his eyes to read the number as the auto flashed past. But it was hopeless. The tail of the car was lost in an eddying whirl of dust.

"She certainly does travel," commented Baker, softly

"She does," Hatch assented

Then, for the benefit of the newspaper man, Baker called Bowman on the wire

"Car's coming again," he shouted "Look out and let me know"

Bowman, at his end, waited twenty minutes, then made the usual report—the car had not passed. Hutchinson Hatch was a calm, cold, dispassionate young man, but now a queer, creepy sensation stole along his spinal column. He lighted a cigarette and pulled himself together with a lerk.

"There's one way to find out where it goes," he declared at last, emphatically, "and that's to place a man in the middle just beyond the bend of The Trap and let him wait and see If the car goes up, down, or evaporates he'll see and can tell us"

Baker looked at him curiously

"I'd hate to be the man in the middle," he declared There was something of uneasiness in his manner

action inspired a sudden similar caution on Bouman's He paused and glanced quickly behind him The

" maybe it's a-a spook auto?" "Maybe-maybe-" said Bowman after a minute, part

and it didn't go out your end. Now where is it?" at the ends. That car came in here, it isn't here now well as I do that no car can get out of this trap except "Well, it must be," mused Baker. "You know as

thing four times quickly, apprehensively three times—Baker did the same road back to his post On his way he glanced around tern, shook his head solemnly, and wandered along the Bowman stared at him a minute, picked up his lan-

"I'll tell you what, Baker," said Bowman in contalked it over Baker and Bowman met half way between posts and disappeared precisely as it had done previously. Again On the third night the phantom car appeared and

msinuation, Special Constable Baker was distinctly hurt at the car. Maybe if I was at your end I couldn't see it " clusion, "maybe you're just imagining that you see a

"All right, Jun," he said at last, " if you think that

npon him with a rush and a crackling-chug of engine camp-stool And he saw the phantom auto It came made himself comfortable on Special Constable Baker's On the following night Special Constable Bowman arr approaching enthusiasm " I'll bet I don't see it " "Now that's the talk," exclaimed Bowman with an won't have to say anything about it when we report " way about it we'll swap posts to-morrow night. We

sud then sped on leaving him nerveless. He called

Baker over the wire and Baker watched half an hour for the phantom It didn't appear

Ultimately all things reach the newspapers So with the story of the phantom auto, Hutchinson Hatch, reporter, smiled incredulously when his City Editor laid aside an inevitable cigar and tersely stated the known facts. The known facts in this instance were meagre almost to the disappearing point. They consisted merely of a corroborated statement that an automobile, solid and tangible enough to all appearances, rushed into The Trap each night and totally disappeared.

But there was enough of the bizarre about it to pique the curiosity, to make one wonder, so Hatch journeyed down to Yarborough County, an hour's ride from the city, met and talked to Baker and Bowman and then, in broad daylight strolled along The Trap twice. It was a leisurely, thorough investigation with the end in view of finding out how an automobile once inside might get out again without going out either end

On the first trip through Hatch paid particular attention to the Thomas Q Rogers side of the road. The wall, nine feet high, was an unbroken line of stone with not the slightest indication of a secret wagon-way through it anywhere. Secret wagon-way! Hatch smiled at the phrase. But when he reached the other end—Bowman's end—of The Trap he was perfectly convinced of one thing—that no automobile had left the hard, macadamized road to go over, under or through the Thomas Q Rogers wall. Returning, still leisurely, he paid strict attention to the John Phelps Stocker side, and when he reached the other end—Baker's end—he was convinced of another thing—that no automobile had left the road to go over, under or through the John Phelps Stocker wall

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"I rather think I would, too," responded Hatch
On the following evening, consequent upon the appearance of the story of the phantom auto in Hatch's
paper, there were twelve other reporters on hand Most
of them were openly, flagrantly sceptical; they even
insinuated that no one had seen an auto Hatch smiled
wisely

capture the phantom auto Thirteen of them, making a total of fifteen men with Baker and Bowman, were on hand and they agreed to a suggestion for all to take positions along the road of The Trap from Baker's position Bowman's, watch for the auto, see what happened to it and compare notes afterwards. So they scattered to it and compare notes afterwards. So they scattered themselves along a few hundred feet apart and waited That mght the phantom auto didn't appear at all and That mght the phantom auto didn't appear at all and

men of a great city had entered into a conspiracy to

" Wait!" he advised with deep conviction.

That night the phantom auto didn't appear at all and twelve reporters jeered at Hutchinson Hatch and told him to light his pipe with the story. And next night him to light his pipe with the story. And next night him to light his pipe with the story.

CHAPTER XXI

THE GAP IN THE TRAIL

LIKE a child with a troublesome problem, Hatch took the entire matter and laid it before Professor Augustus S F X Van Dusen, the master brain The Thinking Machine, with squint eyes turned steadily upward and long, slender fingers pressed tip to tip listened to the end

"Now I know of course that automobiles don't fly," Hatch burst out savagely in conclusion, "and if this one doesn't fly, there is no earthly way for it to get out of The Trap as they call it I went over the thing carefully—I even went so far as to examine the ground and the tops of the walls to see if a runway had been let down for the auto to go over"

The Thinking Machine squinted at him inquiringly

"Are you sure you saw an automobile?" he demanded irritably

"Certainly I saw it," blurted the reporter "I not only saw it—I smelled it Just to convince myself that it was real I tossed my cane in front of the thing and it smashed it to tooth-picks"

"Perhaps, then if everything is as you say the auto actually does fly," remarked the scientist

The reporter stared into the calm inscrutable face

heard aright Then he concluded that he had of The Thinking Machine, fearing first that he had not giz

may be an auto-aeroplane affair, and that it actually "You mean," he inquired eagerly, " that the phantom

"I had an idea something like that myself," Hatch " It's not at all impossible," commented the scientist does fly?"

place for some daring experimenter to get up sufficient "The perfect stretch of road there might be the very or so, but I didn't get anything" explained, "and questioned every soul within a mile

"Did I tell you "Light machine?" Hatch repeated. tinued the scientist speed to soar a short distance in a light machine," con-

Dear me ! That makes it very different Of course four " Four people!" exclaimed the scientist. " Dear me! that this car had four people in it ? "

and passed into the adjoining room. After a moment lines appeared in his dome-like brow Then he arose For ten minutes he sat silent, and tiny, cobwebby people would be too great a lift for an----

Hatch heard the telephone bell lingle Five minutes

"I suppose what you really want to learn is if the him unpleasantly later The Thinking Machine appeared, and scowled upon

duened csr is 3—3 material one, and to whom it belongs?" he

rider?" demanded the scientist abruptly. "Do you happen to know a fast, long-distance bicycle it does what it does, and how it gets out of the Trap " "That's it," agreed the reporter, " and of course why

"I think I see the idea, but---" "A dozen of them," replied the reporter promptly.

"You haven't the faintest inkling of the idea," delared The Thinking Machine positively "If you can rrange with a fast rider who can go a distance—it might e thirty, forty, fifty miles—we may end this little affair without difficulty"

Under these circumstances Professor Augustus S F Van Dusen, Ph D, LL D, F R S, M D, etc, etc, cientist and logician, met the famous Jimmie Thalauer, the world's champion long distance bicyclist. He held every record from five miles up to and including six hours, had twice won the six-day race, and was altogether a master in his field. He came in chewing a tooth-pick. There were introduc-

"You ride the bicycle?" inquired the crusty little cientist
"Well, some," confessed the champion modestly with

ions

wink at Hatch
"Can you keep up with an automobile for a distance

of, say, thirty or forty miles?"
"I can keep up with anything that ain't got wings,"

was the response

"Well, to tell you the truth," volunteered The Thinking Machine, "there is a growing belief that this particular automobile has wings However if you can keep up with it——"

"Ah, quit your kiddin'" said the champion, easily "I can ride rings around anything on wheels—I'll start behind it and beat it where it's going"

The Thinking Machine examined the champion, Jimmie

The Thinking Machine examined the champion, Jimmie Thalhauer as a curiosity. In the seclusion of his laboratory he had never had an opportunity of meeting just such another worldly young person.

moves away, and the cyclist drops in behind Another race which leads off in another direction Finally, from the auto stops, the head lights flare up and more leisurely it proceeds on its way.

On the following evening The Thinking Machine and sident of the Fordyce National Bank Mr Stanwood, President of the Fordyce National Bank Machine and Stanwood, President of the Fordyce National Bank Machine and Stanwood, President of the Fordyce National Bank Machine and Stanwood, President of the Fordyce National Bank Machine and Stanwood, President of the Fordyce National Bank Mr Stanwood, President of the Fordyce National Bank

"We called to inform you, Mr Stanwood," explained The Thinking Machine, "that a box of securities, probably United States bonds, is missing from your bank" "What?" exclaimed Mr Stanwood, and his face

paled. "Robbery?"

"I only know the bonds were taken out of the vault to-night by Joseph Marsh, your assistant cashier," said the scientist, "and that he, together with three other men, left the bank with the box and are now at—a place

I can name."
Mr. Stanwood was staring at him in amazement
"You know where they are?" he demanded

"You know where they are?" he demanded "I said I did," replied the scientist, shortly. "Then we must inform the police at once, and—"

"I don't know that there has been an actual crime," interrupted the scientist "I do know that every night for a week these bonds have been taken out through the connivance of your watchman, and in each instance have been returned to-night Therefore I would advise, if you act, not to do so until the four men return with the bonds."

It was a singular party which met in the private

office of President Stanwood at the bank just after mid-

night Marsh and three companions, formally under arrest, were present as were President Stanwood, The Thinking Machine and Hatch, besides detectives Marsh had the bonds under his arms when he was taken. He talked freely when questioned

"I will admit," he said without hesitating, "that I have acted beyond my rights in removing the bonds from the vault here, but there is no ground for prosecution I am a responsible officer of this bank and have violated no trust. Nothing is missing, nothing is stolen. Every bond that went out of the bank is here."

"But why—why did you take the bonds?" demanded Mr Stanwood.

Marsh shrugged his shoulders

"It's what has been called a get-rich-quick scheme," said The Thinking Machine "Mr Hatch and I made some investigations today Mr Marsh and these other three are interested in a business venture which is ethically dishonest but which is within the law. They have sought backing for the scheme amounting to about a million dollars Those four or five men of means with whom they have discussed the matter have called each might for a week at Marsh's country place. It was necessary to make them believe that there was already a million or so in the scheme, so these bonds were borrowed and represented to be owned by themselves They were taken to and fro between the bank and his home in a kind of an automobile This is really what happened, based on knowledge which Mr Hatch has gathered and what I myself developed by the use of a little logic "

And his statement of the affair proved to be correct Marsh and the others admitted the statement to be

" How fast can you ride, Mr Thalhauer?" he asked

at last.
"I'm ashamed to tell you," confided the champion in a hushed voice. "I can ride so fast that I scare myself". He paused a moment. "But it seems to me," he said, "if there's thirty or forty miles to do I ought to do it on a motor-cycle."

"Mow that's just the point," explained The Thinking Machine. "A motor-cycle makes noise and if it could have been used we would have hired a fast automobile behind an automobile which may also run without lights and find out where it goes. No occupant of the car must suspect that it is followed."

"Without lights?" repeated the champion "Gee!

Rubber shoe, ch? "
The Thinking Machine looked his bewilderment,

"Yes, that's it," Hatch answered for him
"I guess it's good for a four column head? Hunh?"

"I guess it's good for a four column head? Hunh?" champion? "Special pictures posed by the champion? "Yes," Hatch replied

", Tracked on a Bicycle, sounds good to me Hunh?"

So arrangements were concluded, and then and there The Thinking Machine gave definite and conclusive instructions to the champion While these apparently bore broadly on the problem in hand they conveyed absolutely no inkling of his plan to the reporter. At the end the champion arose to go.

"You're a most extraordinary young man, Mr. Thal-

hauer," commented The Thinking Machine, not without admiration for the sturdy, powerful figure.

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A road map will show you that the most direct line from say to reach Marsh's house in time for an appointment. the vehicle was first noticed it was rushing along—we'll phantom idea came merely by chance On the night vehicle in which the bonds were moved about. The "The phantom auto as you call it," he said, " is the to Hatch. ward bound that he explained the phantom auto affair true It was while The Thinking Machine was home-

the bank to Marsh's was through The Trap. If an

estate to the road in front" rushed into the trap was merely taken across the Stocker first was of course valuable, so the car in which they would be lessened by a good five miles This saving at across the Stocker estate to the other road, the distance automobile should go half way through there, then out

narrow walk from a very narrow foot-gate in Stocker's " I learned by 'phone from Mr. Stocker that there is a there." "But how?" demanded Hatch. "There's no road

under the arm " The seats are light, they can be carried trundle them through a narrow gate and across to the other road course, separate machines and as such it was easy to experimenting with them. The motor cycles are, of and a steering apparatus The French Army has been all—it was merely two motor cycles arranged with seats other road. The phantom auto wasn't really an auto at wall on The Trap leading through the grounds to the

" He waited in the road at the other end of the foot minute. "But what did Jimmie Thalhauer do for "Oh!" exclaimed Hatch suddenly, then after a

CHAPTER XXII

THE BROWN COAT

ropbery was discovered been captured within less than twelve hours after the He was safely in a cell at Police Headquarters, having Nor yet was there any mystery as to his whereadouts albeit a young one, and he had made a clean sweep stamps It was "Mort" Dolan, an expert safe-cracker National Bank of \$109,437 in cash and \$1 29 in postage the man who, alone and unaided, robbed the Thirteenth THERE was no mystery whatever about the identity of

matter came to the attention of The Thinking Machine It was four or five days after his arrest that the sible, so he confessed with a glow of pride at a job well caught fairly and squarely and no argument was posquestioned by Detective Mallory He knew he had been he was cornered, and had attempted no denial when Dolan had offered no resistance to the officers when

Then the problem was—

But perhaps it were better to begin at the beginning

for he had started early This robbery of the Thirteenth the police had a wholesome respect He had a record, thirty years old, " Mort". Dolan was a man for whom Despite the fact that he was considerably less than

National was his "big" job and was to have been his last With the proceeds he had intended to take his wife and quietly disappear beneath a full beard and an alias in some place far removed from former haunts But the mutability of human events is a matter of proverb While the robbery as a robbery was a thoroughly artistic piece of work and in full accordance with plans which had been worked out to the minutest details months before, he had made one mistake This was leaving behind him in the bank the can in which the mtro-glycerine had been bought Through this carelessness he had been traced

Dolan and his wife occupied three poor rooms in a poor tenement house From the moment the police got a description of the person who bought the explosive they were confident for they knew their man Therefore four clever men were on watch about the poor tenement Neither Dolan nor his wife was there then, but from the condition of things in the rooms the police believed that they intended to return so took up positions to watch

Unsuspecting enough, for his one mistake in the robbery had not recurred to him, Dolan came along just about dusk and started up the five steps to the front door of the tenement It just happened that he glanced back and saw a head drawn suddenly behind a pro-Jecting stoop But the electric light glared strongly there and Dolan recognized Detective Downey, one of many men who revolved around Detective Mallory within a limited orbit Dolan paused on the stoop a moment and rolled a cigarette while he thought it over Perhaps instead of entering it would be best to stroll on down the street, turn a corner and make a dash for it But just

at that moment he spied another head in the direction of contemplated flight. That was Detective Blanton.

Deeply thoughtful Dolan smoked half the cigarette and stared blankly in front of him He knew of a back

Deeply thoughtful Dolan smoked half the cigarette and stared blankly in front of him He knew of a back door opening on an alley. Perhaps the detectives had away, entered the house with affected unconcern and unclean hall which extended the full length of the building he flung open the back door He turned back instantly—just outside he had seen and recognized beck instantly—just outside he had seen and recognized betective Cunningham.

Then he had an inspiration! The root! The building was four stories. He ran up the four flights lightly but rapidly and was half way up the short flight which led to the opening in the root when he stopped. From above he caught the whiff of a bad cigar, then the measured tread of heavy boots. Another detective! With a sickening depression at his heart Dolan came softly down the stairs again, opened the door of his flat with a latch-key and entered.

Then and there he sat down to figure it all out.

Then and there he sat down to figure it all out There seemed no escape for him Every way out was blocked, and it was only a question of time before they were only vaiting for his wife's return. He could fight for his freedom of course—even kill one, perhaps two, of the detectives who were waiting for him But that would only mean his own death. If he tried to run for it past only mean his own death. If he tried to run for it past either of the detectives he would get a shot in the back. And besides, murder was repugnant to Dolan's artistic soul It didn't do any good But could he warn soul It didn't do any good But could he warn soul It didn't do any good But could he warn soul It didn't do any good But could he warn soul It didn't do any good But could he warn soul it will be said to sould he feared she would walk into the

trap as he had done, and she had had no connection of any sort with the affair

Then, from a fear that his wife would return, there swiftly came a fear that she would not He suddenly remembered that it was necessary for him to see her The police could not connect her with the robbery in any way, they could only hold her for a time and then would be compelled to free her for her innocence of this particular crime was beyond question. And if he were taken before she returned she would be left penniless, and that was a thing which Dolan dreaded to contemplate There was a spark of human tenderness in his heart and in prison it would be comforting to know that she was well cared for If she would only come now he would tell her where the money—!

For ten minutes Dolan considered the question in all possible lights. A letter telling her where the money was? No It would inevitably fall into the hands of the police. A cipher? She would never get it. How? How? How? Every moment he expected a clamour at the door which would mean that the police had come for him. They knew he was cornered. Whatever he did must be done quickly. Dolan took a long breath and started to roll another digarette. With the thin white paper held in his left hand and tobacco bag raised in the other he had an inspiration.

For a little more than an hour after that he was left alone Finally his quick ear caught the shuffle of stealthy feet in the hall, then came an imperative rap on the door. The police had evidently feared to wait longer. Dolan was leaning over a sewing machine when the summons came. Instinctively his hand closed on his revolver, then he tossed it aside and walked to the door.

" Well?" he demanded.

"Let us in, Dolan," came the reply.

" That you, Downey?" Dolan inquired

are three of us here and Cunningham is in the alley "Yes Now don't make any mistakes, Mort There

For one instant—only an instant—Dolan hesitated watching your windows. There's no way out"

volvers were thrust into his face with a unanimity that at the sewing machine, he opened the door. Three rebe heart-broken. Finally, with a quick backward glance planned it all so differently, and the little "oman would feared prison—it was regret at being caught. He had It was not that he was repentant, it was not that he

promptly raised his hands over his head sboke well for the police opinion of the man. Dolan

Detective Downey, by a personal search, corroborated not crazy. My gun is over on the couch there " "Oh, put down your guns," he expostulated "I'm

"The chief wants you," he said "It's about that this statement then the revolvers were lowered.

Thirteenth National Bank robbery"

hands for the steel nippers. " All right," said Dolan, calmly and he held out his

save us a lot of trouble by telling us where the money is " " Now, Mort," said Downey, ingratiatingly, " you can

Cunningham was called in from the alley He and Detective Downey looked at him and understood "Doubtless I could," was the ambiguous response

SITA Headquarters They were well acquainted, professionthe prisoner appeared before Detective Mallory at Police men led Dolan away. In the natural course of events Downey remained in the apartment and the other two Dolan told everything frankly from the inception of the plan to the actual completion of the crime. The detective sat with his feet on his desk listening. At the end he leaned forward toward the prisoner

"And where is the money?" he asked

Dolan paused long enough to roll a cigarette.

"That's my business," he responded, pleasantly

"You might just as well tell us," insisted Detective Mallory "We will find it, of course, and it will save us trouble"

"I'll just bet you a hat you don't find it" replied Dolan, and there was a glitter of triumph in his eyes "On the level, between man and man now I will bet you a hat that you never find that money"

"You're on," replied Detective Mallory He looked keenly at his prisoner and his prisoner stared back without a quiver "Did your wife get away with it?"

From the question Dolan surmised that she had not been arrested.

"No," he answered.

" Is it in your flat?"

"Downey and Cunningham are searching now," was the rejoinder "They will report what they find"

There was silence for several minutes as the two men—officer and prisoner—stared each at the other. When a thief takes refuge in a refusal to answer questions he becomes a difficult subject to handle. There was the "third degree" of course, but Dolan was the kind of man who would only laugh at that, the kind of man from whom anything less than physical torture could not bring a statement if he didn't choose to make it Detective Mallory was perfectly aware of this dogged trait in his character.

prove it. That's all I'm going to say. You might just had no connection with the thing at all and she can me—my wife knows nothing on earth about it. She —I know your men waited for her before they took ing to take my medicine. Nobody helped me. My wife you will never find it. I did it by myself, and am willropped the bank, I got the money, and it's now where "It's this way, chief," explained Dolan at last. "I 230

Detective Mallory's eyes snapped. as well make up your mind to it."

" or—or I'll see that you get—" "You will tell where that money is," he blustered,

the worst you can do for me." Dolan quietly. "I expect to get twenty years—that's "Twenty years is the absolute limit," interrupted

The Detective stared at him hard

the jailers is the best pinochle player I ever met" got lots of friends there—been there before. One of some when I get where you're going to send me. I've "And besides," Dolan went on, "I won't be lone-

same, Dolan remained silent Finally he was led away by promises, by wheedling, by bluster It was all the tion by heaping invective upon the prisoner, by threats, outset Detective Mallory sought to appease his indigna-Like most men who find themselves balked at the

not enlighten him as to the whereabouts of the stolen peared. One glance told their chief that they could A few minutes later Downey and Cunningham apsuq jocked,up.

replied Downey grimly. "It isn't in that flat. There's "No, but I have a very definite idea where it isn't," "Do you have any idea where it is?" he demanded.

not one square inch of it that we didn't go over—not one object there that we didn't tear to pieces looking. It simply isn't there. He hid it somewhere before we got him."

"Well take all the men you want and keep at it," instructed Detective Mallory "One of you, by the way, had better bring in Dolan's wife. I am fairly certain that she had nothing to do with it but she might know something and I can bluff a woman." Detective Mallory announced that accomplishment as if it were a thing to be proud of "There's nothing to do now but get the money Meanwhile I'll see that Dolan isn't permitted to communicate with anybody"

"There is always the chance," suggested Downey, "that a man as clever as Dolan could in a cipher letter, or by a chance remark, inform her where the money is if we assume she doesn't know, and that should be guarded against."

"It will be guarded against," declared Detective Mallory emphatically "Dolan will not be permitted to see or talk to anyone for the present—not even an attorney He may weaken later on."

But day succeeded day and Dolan showed no signs of weakening. His wife, meanwhile, had been apprehended and subjected to the "third degree." When this ordeal was over the net result was that Detective Mallory was convinced that she had had nothing whatever to do with the robbery, and had not the faintest idea where the money was. Half a dozen times Dolan asked permission to see her or to write to her. Each time the request was curtly refused.

Newspaper men, with and without inspiration, had sought the money vainly, and the police were now seek-

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Ashe and two directors of the victimized bank appeared. to talk it over with Mallory While there President the fourth time, then went over to Police Headquarters porter, made an exhaustive search of Dolan's flat, for anything. Finally, one day, Hutchinson Hatch, reflat had been abandoned Dolan simply wouldn't say had been hidden, for the idea of the money being in the way they hoped to get an inkling of where the money ance on the steps of the house where he lived In this moment of the robbery until the moment of his appearng to trace the movements of " Mort". Dolan from the

" Not yet," responded Detective Mallory. " Is there any trace of the money?" asked Mr. Ashe. They were worried

"If we didn't get anything out of him you won't," " Well, could we talk to Dolan a few minutes?"

Dolan didn't seem particularly glad to see them He along" said the detective "But it won't do any harm. Come

At last he turned to the prisoner his companions, and Dolan watched them curiously method of expression Once or twice he spoke aside to bortance on his mind and was seeking the happiest of a grin. Mr Ashe evidently had something of imany interest in his visitors. This interest took the form dent of the Thirteenth National that he seemed to take only when Mr. Ashe was introduced to him as the Presicame to the bars of his cell and peered through. It was

"There's no need of denying it," replied Dolan. "You admit that you robbed the bank?" he asked.

speaking on their behalf I want to say something Board of Directors held a meeting this morning, and "Well," and Mr. Ashe hesitated a moment, "the

you will inform us of the whereabouts of the money we will, upon its recovery, exert every effort within our power to have your sentence cut in half—In other words, as I understand it, you have given the police no trouble, you have confessed the crime and this, with the return of the money, would weigh for you when sentence is pronounced—Say the maximum is twenty years, we might be able to get you off with ten if we get the money"

Detective Mallory looked doubtful He realized, perhaps, the futility of such a promise yet he was silent. The proposition might draw out something on which to proceed.

"Can't see it," said Dolan at last. "It's this way I'm twenty-seven years old. I'll get twenty years About two of that'll come off for good behaviour, so I'll really get eighteen years. At the end of that time I'll come out with one hundred and nine thousand dollars odd—rich for life and able to retire at forty-five years. In other words while in prison I'll be working for a good, stiff salary—something really worth while. Very few men are able to retire at forty-five."

Mr Ashe readily realized the truth of this statement. It was the point of view of a man to whom mere prison has few terrors—a man content to remain immured for twenty years for a consideration. He turned and spoke aside to the two directors again.

"But I ll tell you what I will do," said Dolan, after a pause. "If you'll fix it so I get only two years, say, I'll give you half the money"

There was silence Detective Mallory strolled along the corridor beyond the view of the prisoner and summoned President Ashe to his side by a jerk of his head.

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".qu əviş "Agree to that," he said. "Perhaps he'll really

"But it wouldn't be possible to arrange it, would

" Certainly not," said the detective, " but agree to it. it?" asked Mr. Ashe.

Get your money and then we'll nail him anyhow."

He walked back to the cell. at the treachery of the thing, then greed triumphed. Mr. Ashe stared at him a moment vaguely indignant

"Fix a two years' sentence for you in return for half "We'll agree to that, Mr Dolan," he said briskly.

the money."

Dolan smiled a little

tell you where you can get your half" it for me so that the matter can never be reopened I'll two years is pronounced and a first class lawyer arranges " All right, go ahead," he said. "When sentence of

"But of course you must tell us that now," said MI.

Ashe.

Mr. Ashe was silent for a moment, then blushed. president that the duplicity contemplated was discovered. ating, accusing sort of smile and it informed the bank Dolan smiled cheerfully. It was a taunting, insinu-

an end. recess of his cell as if his interest in the matter were at " Nothing doing," said Dolan, and he retired into a

ns considerably" Ashe "It was a large sum and the theft has crippled "But—but we need the money now," stammered Mr.

get two years the sooner you get it " " All right," said Dolan carelessly. "The sooner I

" I'll leave that to you " " How could it be-be fixed ?" That was all The bank president and the two directors went out fuming impotently Mr Ashe paused in Detective Mallory's office long enough for a final word

"Of course it was brilliant work on the part of the police to capture Dolan," he said caustically, "but it isn't doing us a particle of good. All I see now is that we lose a hundred and nine thousand dollars"

"It looks very much like it," assented the detective, "unless we find it"

"Well, why don't you find it?"
Detective Mallory had to give it up

CHAPTER XXIII

V НОМАМ РROBLEM

clusive that she had no idea where it is?"

"She has been put through the 'third degree,'" explained the reporter, " and if she had known she would probably have told."

"Is she living in the flat now?"

"No. She is stopping with her sister The flat is under lock and key Mallory has the key. He has

chine in his perpetually urreated voice "It seems con-

Everything indicates that it was hidden somewhere "Werything indicates that it was hidden somewhere

shown the utmost care in everything he has done. Dolan has not been permitted to write to or see his wife for is; he has not been permitted to communicate with anybody at all, not even a lawyer. He did see President Ashe and two directors of the bank but naturally he wouldn't give them a message for his write."

The Thinking Machine was silent. For five, ten, twenty minutes he sat with long, slender fingers pressed

tip to tip, squinting unblinkingly at the ceiling Hatch waited patiently

"Of course," said the scientist at last, "one hundred and nine thousand dollars, even in large bills would make a considerable bundle and would be extremely difficult to hide in a place that has been gone over so often. We may suppose, therefore, that it isn't in the flat. What have the detectives learned as to Dolan's whereabouts after the robbery and before he was taken?"

"Nothing," replied Hatch, "nothing, absolutely He seemed to disappear off the earth for a time. That time, I suppose, was when he was disposing of the money

His plans were evidently well laid "

"It would be possible of course, by the simple rules of logic, to sit still here and ultimately locate the money," remarked The Thinking Machine musingly, "but it would take a long time. We might begin, for instance, with the idea that he contemplated flight? When? By rail or steamer? The answers to those questions would, in a way, enlighten us as to the probable location of the money, because, remember, it would have to be placed where it was readily accessible in case of flight But the process would be a long one Perhaps it would be best to make Dolan tell us where he hid it"

"It would if he would tell," agreed the reporter, "but he is reticent to a degree that is maddening when the money is mentioned."

"Naturally," remarked the scientist "That really doesn't matter I have no doubt he will inform me"

So Hatch and The Thinking Machine called upon Detective Mallory

They found him in deep abstraction
He glanced up at the intrusion with an appearance, almost, of relief.

He knew intuitively what it was.

8£2

thoughtfully and the corners of his straight mouth nere The Thinking Machine squinted into the official eyes he declared emphatically, "I'll—I'll—well you can't " "If you can find out where that money is, Professor,"

"Yes," was the reply. "She is living with her sister." I understand it his wife is practically without means?" Dolan will inform me as to where the money is. As caution here, Mr. Mallory," he said. "I have no doubt "I think perhaps there has been a little too much drawn down disapprovingly

write to or see her?" " And he has asked several times to be permitted to

" semit to ansatob , as Y "

"Lord, that's just what he wants," blurted the degested The Thinking Machine. "Well, now suppose you do let him see her," sug-

"Well, if he informs her won't he also inform us?" know where it is " her where the money is As it is now I know she doesn't way, by something he says, by a gesture, or a look inform tective. "If he ever sees her I know he will, in some

interpret a word as a clue to where the money is I am the information I daresay if she is clever enough to money to his wife let him talk to her—let him give her wants to convey knowledge of the whereabouts of the demanded The Thinking Machine tartly. "If Dolan

But in this case he was trankly in doubt scyrened by methods wholly unlike those of the police and he knew, too, some of the amazing results he had crabbed little scientist with the enormous head of old; The detective thought that over He knew this

"This way," The Thinking Machine continued.

r, Get

the wife here, let her pass Dolan's cell and speak to him so that he will know that it is her, then let her carry on a conversation with him while she is beyond his sight. Have a stenographer, without the knowledge of either, take down just what is said, word for word. Give me a transcript of the conversation, and hold the wife on some pretext until I can study it a little. If he gives her a clue I'll get the money."

There was not the slightest trace of egotism in the irritable tone. It seemed merely a statement of fact Detective Mallory, looking at the wizened face of the logician, was doubtfully hopeful and at last he consented to the experiment. The wife was sent for and came eagerly, a stenographer was placed in the cell adjoining Dolan, and the wife was led along the corridor. As she paused in front of Dolan's cell he started toward her with an exclamation. Then she was led on a little way out of his sight.

With face pressed close against the bars Dolan glowered out upon Detective Mallory and Hatch An expression of awful ferocity leapt into his eyes

"What're you doing with her?" he demanded.

" Mort, Mort," she called.

"Belle, is it you?" he asked in turn.

"They told me you wanted to talk to me," explained the wife She was panting fiercely as she struggled to shake off the hands which held her beyond his reach

"What sort of a game is this, Mallory?" demanded

the prisoner

"You've wanted to talk to her," Mallory replied, "now go ahead. You may talk, but you must not see her"

"Oh, that's it eh?" snarled Dolan "What did you bring her here for then? Is she under arrest?"

"Mort, Mort," came his wife's voice again. " They otz

on a stool, twiddling his fingers. After a moment the roving eyes to where The Thinking Machine was sitting family tragedy, and tiptoed beyond reach of Dolan's overpowered by a feeling that he was intruding upon a There was utter silence for a moment. Hatch was won't let me come where I can see you "

"Belle?" called Dolan agam. It was almost a detective joined them

listening" ningham and Blanton are holding me-the others are "Don't say anything, Mort," she panted. "Cunwhisper.

" No, at my sister's," was the reply. "I have no Hat?" are getting along all right. Are you still at the "I did want to see you. I wanted to know if you "I don't want to say anything," said Dolan easily.

"You know they're going to send me away?" money—I can't stay at the flat"

" it wound I-"Yes," and there was almost a sob in the voice.

"Can you—get along?" asked Dolan solicitously. "səX" "That I'll get the limit—twenty years?"

Mort, why--" "I will do something," was the reply. "Oh, Mort, " Is there anything you can do for yourself?"

two years, and then... I, I get the good behaviour allowance—that'll save I planned for, little girl, but it's here so-so I'll meet "Oh never mind that," he interrupted impatiently.

There was a menace in the tone which was not lost upon the listeners

" Eighteen years," he heard her moan

For one instant Dolan's lips were pressed tightly together and in that instant he had a regret—regret that he had not killed Blanton and Cunningham rather than submit to capture. He shook off his anger with an effort

"I don't know if they'll permit me ever to see you," he said, desperately, "as long as I refuse to tell where the money is hidden, and I know they'll never permit me to write to you for fear I'll tell you where it is So I suppose the good-bye'll be like this I'm sorry, little girl"

He heard her weeping and hurled himself against the bars in a passion, it passed after a moment. He must not forget that she was penniless, and the money—that vast fortune—!

"There's one thing you must do for me, Belle," he said after a moment, more calmly "This sort of thing doesn't do any good Brace up, little girl, and wait—wait for me Eighteen years is not forever, we're both young, and—but never mind that I wish you would please go up to the flat and—do you remember my heavy, brown coat?"

"Yes, the old one?" she asked.

"That's it," he answered "It's cold here in this cell. Will you please go up to the flat when they let you loose and sew up that tear under the right arm and send it to me here? It's probably the last favour I'll ask of you for a long time so will you do it this afternoon?"

"Yes" she answered, tearfully

The Thinking Machine arose and stretched himself a tried, I shall have a chance to see you and-" sew it up," said Dolan again, "Perhaps, when I am

self against the bars of his cell like a caged animal dered a little, and Dolan, not understanding, flung himand the woman was led away, screaming Hatch shud-Mallory made a motion to Cunningham and Blanton "Have her held until I tell you to release her "That's all that's necessary, Mr. Mallory," he said. little.

" Now, Mr Hatch, we have the whereabouts of the the detective went back to his private office. All were Accompanied by The Thinking Machine and Hatch where it is—not in a thousand years " where it was, but I didn't and you never will know of Detective Mallory. "Thought I'd try to tell her " Clever, aren't you?" he snarled as he caught sight

The reporter went out without a word. Half an hour scientist. ". That doesn't make the least difference," snapped the cost," protested the detective. "But two of my men have already searched that money is somewhere in that coat " Dolan mentioned I daresay the secret of the hidden "Please go at once to the flat and bring the brown coat money settled," said The Thinking Machine, quietly. the eyes of the scientist silent but the detective glanced from time to time into

places. When he saw it The Thinking Machine nodded tepair not only in the rip under the arm but in other place looking garment, badly worn and in sad need of later he returned with the brown cost. It was a commonhis head abruptly as if it were just what he had expected.

"The money can't be in that and I'll bet my head on it," declared Detective Mallory, flatly "There isn't room for it."

The Thinking Machine gave him a glance in which, there was a touch of pity

"We know," he said, "that the money isn't in this coat. But can't you see that it is perfectly possible that a slip of paper on which Dolan has written down the hiding place of the money can be hidden in it somewhere? Can't you see that he asked for this coat—which is not as good a one as the one he is wearing now—in order to attract his wife's attention to it? Can't you see it is the one definite thing that he mentioned when he knew that in all probability he would not be permitted to see his wife again, at least for a long time?"

Then, seam by seam, the brown coat was ripped to pieces Each piece in turn was submitted to the sharpest scrutiny. Nothing resulted. Detective Mallory frankly regarded it all as wasted effort and when there remained nothing of the coat save strips of cloth and lining he was inclined to be triumphant. The Thinking Machine was merely thoughtful.

"It went further back than that" the scientist mused, and tiny wrinkles appeared in the dome-like brow "Ah! Mr Hatch please go back to the flat, look in the machine drawers, or work basket and you will find a spool of brown thread. Bring it to me"

"Spool of brown thread?" repeated the detective in amazement "Have you been through the place?"

the simplest, most rudimentary rules of logic " me," snapped The Thinking Machine. "I know it by "I know it because Mr. Hatch will bring it back to there, then?" "How do you know there's a spool of brown thread 777

that the paper cap on each end was still in place. he did his eyes reflected a glitter of triumph—he noted -the spool was only halfgone. But he noted-and as squint eyes examined it. A portion of it had been used white fingers seized upon it eagerly, and his watery, with a spool of brown thread. The Thinking Machine's Hatch went out again. In half an hour he returned

spool down on the table and squinted at it for a moment pie tace showed blank amazement. Then he put the looked through the hole of the spool For an instant With a pen-knife he ripped off the paper caps and genius. Look here!" beyond the ordinary bank thief. In his way he is a you that in Dolan the police are dealing with a man far "Mow, Mr Mallory," he said, "I'll demonstrate to

had ever been removed over it so smoothly that it was impossible to see that it had been wound around the spool and the thread wound hand a tiny, thin sheet of paper—a cigarette paper. In another metant The Thinking Machine held in his the mass of brown on the spool appeared a white strip. Yard after yard it rolled off in his hand, and finally in With quick fingers he began to unwind the thread. why did he-of course!" " It must be here," he said at last, " It must be, else in absolute silence.

der watching him curiously. The tiny paper unfolded The detective and Hatch were leaning over his shoul—something was written on it Slowly The Thinking Machine deciphered it

"47 Causeway Street, basement, tenth flagstone from northeast corner"

And there the money was found—\$109,000 The house was unoccupied and within easy reach of a wharf from which a European bound steamer sailed Within half an hour of sailing time it would have been an easy matter for Dolan to have recovered it all and that without in the least exciting the suspicion of those who might be watching him. For a saloon next door opened into an alley behind, and a broken window in the basement gave quick access to the treasure

"Dolan reasoned," The Thinking Machine explained, "that even if he was never permitted to see his wife she would probably use that thread and in time find the directions for recovering the money Further he argued that the police would never suspect that a spool contained the secret for which they sought so long His conversation with his wife, today, was merely to draw her attention to something which would require her to use the spool of brown thread. The brown coat was all that he could think of And that's all I think"

Dolan was a sadly surprised man when news of the recovery of the money was broken to him. But a certain quaint philosophy didn't desert him. He gazed at Detective Mallory incredulously as the story was told and at the end went over and sat down on his cell cot.

"Well, chief," he said "I didn't think it was in you That makes me owe you a hat"

CHAPTER XXIV

HIS PERFECT ALIBI

Skulking along through the dense gloom, impalpably a part of the murky mist which pressed down between the tall board fences on each side, moved the figure of a man. Occasionally he shot a glance behind him but the general direction of his gaze was to his left, where a fence cut off the small back-yards of an imposing row of brown-stone residences. At last he stopped and tried a gate. It opened noiselessly and he disappeared inside. A pause A man came out of the gate, closed it carefully and walked on through the alley toward an arc-light and walked on through the alley toward an arc-light street.

Patrolman Gillis was standing idly on a corner, within the light-radius of a street lamp debating some purely personal questions when he heard the steady clack, clack, up and dimly he saw a man approaching. As he came nearer the policeman noticed that the man's right hand was pressed to his face.

"Good evening, officer," said the stranger nervously. "Toothache?" inquired the policeman.

"Yes, and it's nearly killing me," was the reply "If I don't get it pulled I'll—I'll go crazy"

The policeman grinned sympathetically

"Had it myself—I know what it is," he said "You passed one dentist down in the other block, but there's another just across the street here," and he indicated a row of brown-stone residences "Dr Paul Sitgreaves He'll charge you good and plenty"

"Thank you," said the other

He crossed the street and the policeman gazed after him until he mounted the steps and pulled the bell After a few minutes the door opened, the stranger entered the house and Patrolman Gillis walked on

"Dr Sitgreaves here?" inquired the stranger of a

servant who answered the bell.

" Yes."

"Please ask him if he can draw a tooth for me I'm in a perfect agony, and—"

"The doctor rarely gets up to attend to such cases,"

interrupted the servant

"Here," said the stranger and he pressed a bill in the servant's hand. "Wake him for me, won't you? Tell him it's urgent."

The servant looked at the bill, then opened the door

and led the patient into the reception room.

Five minutes later, Dr Sitgreaves, gaping ostentatiously, entered and nodded to his caller

"I hated to trouble you, doctor," explained the

stranger, "but I haven't slept a wink all night"

He glanced around the room until his eye fell upon a clock. Dr Sitgreaves glanced in that direction The hands of the clock pointed to r 53

"Phew!" said Dr Sitgreaves. "Nearly two o'clock.

I must have slept hard. I didn't think I'd been asleep 248

" A molar, here," said the stranger, and he opened his stretch himself " Which tooth is it?" he asked. more than an hour." He paused to gape again and

"That tooth's too good to lose," he said after an depths and fingered the hideous instruments of torture. Dr. Sitgreaves gazed officially into his innermost mouth.

are fairly jumping" the other impatiently, " except that it hurts. Aly nerves "I don't know what's the matter with it," replied examination. "There's only a small cavity in it."

the drawn face, the nervous twitching of hands and the Dr Sitgreaves was professionally serrous as he noted

that. But it isn't the tooth. It's neuralgra." "They are," he said finally "There's no doubt of unusual pallor of his client.

it some time? always comes in that tooth, and I've got to get rid of "Well, pull it anyway," pleaded the stranger "It

The stranger took the glass and gulped down the and see if it doesn't straighten you out" stirred an effervescent powder in a glass "Take this "A filling will save it. Here," and he turned and "It wouldn't be wise," remonstrated the dentist

having the tooth pulled, of course-" the dentist " If it doesn't quiet you and you insist on " Now sit right there for five minutes or so," instructed foaming liquid.

himself only with an obvious effort. of his palamas His visitor was sitting, too, controlling which he looked at his watch and replaced it in a pocket He sat down and glanced, again at the clock after

"This is real neuralgia weather," observed the dentist it last, idly "Misty and damp"

"I suppose so," was the reply "This began to hurt about twelve o'clock, just as I went to bed, and finally it got so bad that I couldn't stand it. Then I got up and dressed and came out for a walk I kept on, thinking that it would get better but it didn't and a policeman sent me here"

There was a pause of several minutes

"Feel any better?" inquired the dentist, at last

"No," was the reply "I think you'd better take it out"

" Just as you say!"

The offending tooth was drawn, the stranger paid him with a sigh of rehef, and after a minute or so started out At the door he turned back.

"What time is it now, please?" he asked

"Seventeen minutes past two," replied the dentist

"Thanks," said the stranger "I'll just have time to catch a car back home"

"Good night," said the dentist

"Good night"

* * * * * *

Skulking along through the dense gloom impalpably a part of the murky mist which pressed down between tall board fences on each side, moved the figure of a man. Occasionally he shot a glance behind him but the general direction of his gaze was to his left, where a fence cut off the small back-yards of an imposing row of brown-stone residences. At last he stopped and tried a gate. It opened noiselessly and he disappeared inside A pause. A man came out of the gate closed it carefully and walked on through the alley toward an arc light

199112 which spread a generous glare at the intersection of a oSz

must have come within a couple of minutes missed the heart only a quarter of an inch or so; death ornamentally on the walls of his apartments. The blade one of several curious daggers which had been used him sprawled upon it face downward. The weapon was several hours He sat beside his desk, and death left big Avon apartment house. He had been dead for found murdered in the sitting room of his suite in the Forrest, a young man of some social prominence, was Next morning at eight o'clock, Paul Randolph De

: sprow of the dying man were these disjointed sentences and him In the scrawly, trembling, incoherent handwriting tective glanced then stared at the paper; it startled pencil was clutched tightly in his right hand. The desheet of paper on which were scrawled a few words; a the dead man Beneath his body, on the desk, lay a panied by the Medical Examiner Together they lifted Detective Mallory went to the apartments, accom-

clock striking 2 * * * * good-bye." stabbed me **** am dymg **** God help me **** ". Murdered * * * * Franklin Chase * * * * quarrel * * * * .

Franklin Chase? Yes Had Mr. Franklin Chase called been on duty the night before. Did he know Mr. man, Moran, was the first person questioned. He had the office floor to make some inquires. An elevator apartments, he went down the single flight of stairs to crime, motive and time. After a sharp scrutiny of the The detective's Jaws snapped as he read. Here was

to see Mr. De Forrest on the night before? Yes.

"What time was he here?"

"About half past eleven, I should say 'He and Mr De Forrest came in together from the theatre"

"When did Mr Chase go away?"

"I don't know, sir I didn't see him"

"It might have been somewhere near two o'clock?"

"I don't know, sir," replied Moran again, "I'll—I'll tell you all I know about it. I was on duty all night Just before two o'clock a telegram was 'phoned for a Mr Thomas on the third floor I took it and wrote on it the time that I received it. It was then just six minutes before two o'clock. I walked up from this floor to the third—two flights to give the message to Mr Thomas. As I passed Mr De Forrest's door, I heard loud voices, two people evidently quarrelling. I paid no attention then but went on I was at Mr Thomas's door possibly five or six minutes. When I came down I heard nothing further and thought no more of it."

"You fix the time of passing Mr De Forrest's door first at, say, five minutes of two?" asked the detective.

"Within a minute of that time, yes, sir"

"And again about two or a minute or so after?"

"Yes"

"Ah," exclaimed the detective "That fits in exactly with the other and establishes beyond question the moment of the murder" He was thinking of the words "clock striking 2" written by the dying man "Did you recognize the voices?"

"No, sir, I could not They were not very clear"

That was the substance of Moran's story Detective Mallory then called at the telegraph office and indisputable records there showed that they had telephoned a

Detective Mallory was satisfied

Detective Mallory was satisfied

Within an hour Franklin Chase was under arrest. Detective Mallory found him sound asleep in his room in a boarding house less than a block away from the Avon He seemed somewhat astonished when informed of his arrest for murder, but was quite calm formed of his arrest for murder, he protested "It's some sort of a mistake" he protested "It's some sort of a mistake " he protested "It's some sort of a mistake " he protested "It's some sort of a mistake " he protested " "It's some sort of a mistake " he protested " " It's some sort of a mistake " he protested " " It's some sort of a mistake " he protested " " It's some sort of a mistake " he protested " " It's some sort of a mistake " he protested " " It's some sort of a mistake " he protested " " It's some sort of a mistake " he protested " " " It's some sort of a mistake " he protested " " " It's some sort of a mistake " he protested " " " It's some sort of a mistake " he protested " " It's some sort of a mistake " he protested " " It's some sort of a mistake " he protested " " It's some sort of a mistake " he protested " " It's some sort of a mistake " he protested " " It's some sort of a mistake " he protested " " It's some sort of a mistake " he protested " " It's some sort of a mistake " he protested " " It's some sort of a mistake " he protested " " It's some sort of a mistake " he protested " " It's some sort of a mistake " he protested " " It's some sort of a mistake " he protested " " It's some sort of a mistake " he protested " " It's some sort of a mistake " he protested " " It's some sort of a mistake " he protested " " It's some sort of a mistake " he protested " " It's some sort of a mistake " he protested " " " It's some sort of a mistake " he protested " " " It's some sort of a mistake " " It's sort of a mistake

"It's some sort of a mistake," he protested
"I don't make mistakes," said the detective. He had

Further police investigation piled up the evidence against the prisoner. For instance, minute blood stains were found on his hands, and a drop or so on the clothing the had worn the night before; and it was established by three fellow lodgers—young men who had come in late and stopped at his room—that he was not in his boarding house at two o'clock the night before

That afternoon Chase was arraigned for a preliminary.

That afternoon Chase was arrangned for a preliminary hearing Detective Mallory stated the case and his statement was corroborated by necessary witnesses Wirst he established the authenticity of the dying man's writing. Then he proved that Chase had been with De Forrest at half past eleven o'clock, that there had been a quarrel—or argument—in De Forrest's room just before two o'clock, and finally, with a dramatic flourish, he swore to the blood stains on the prisoner's hands and clothing.

The august Court stared at the prisoner and took up

"May I say something defore we go any further?"

his pen to sign the necessary commitment

the august court stated at the prisoner and took up

asked Mr. Chase
The Court mumbled some warming about anything

the prisoner might say deing used against him

"I understand," said the accused, and he nodded, "but I will show that there has been a mistake—a serious mistake. I admit that the writing was Mr De Forrest's, that I was with him at half past eleven o'clock and that the stains on my hands and clothing were blood stains"

The Court stared

"I've known Mr De Forrest for several years," the prisoner went on quietly "I met him at the theatre last night and walked home with him. We reached the Avon about half past eleven o'clock and I went to his room but I remained only ten or fifteen minutes. Then I went home. It was about five minutes of twelve when I reached my room. I went to bed and remained in bed until one o'clock, when for a reason which will appear, I arose, dressed and went out, say about ten minutes 'past one. I returned to my room a few minutes past three."

Detective Mallory smiled sardonically

"When I was arrested this morning I sent notes to three persons," the prisoner went on steadily "Two of these happen to be city officials, one the City Engineer Will he please come forward."

There was a little stir in the room and the Court scratched one ear gravely City Engineer Malcolm

appeared inquiringly

"This is Mr Malcolm?" asked the prisoner "Yes? Here is a map of the city issued by your office. I would like to ask please the approximate distance between this point—" and he indicated on the map the location of the Avon—" and this". He touched another point far removed.

The City Engineer studied the map carefully

"At least two and a half miles," he explained 79z

"Thank you," said the prisoner, courteously, and he "Yes, I've surveyed it myself" "You would make that statement on oath?"

We men and won't know his name "" turned to face the crowd in the rear. " Is Policeman

forward. Agam there was a stu, and Policeman Gillis came

"Do you remember me?" inquired the prisoner.

" Where did you see me last night?" "Sure," was the reply.

The Court leaned forward eagerly to peer at the map, cated the map at the second point the prisoner had indi-"At this corner," and Gillis put his finger down on

Into the prisoner's manner there came tense anxiety. Detective Mallory tugged violently at his moustache

"Do you know what time you saw me there?" he

ssked.

The prisoner's face went deathly white for an instant, just after I saw you but I didn't notice." "No," he replied at last "I beard a clock strike Policeman Gillis was thoughtful a moment.

The colour rushed back into Chase's face and he was "No, I wasn't paying any attention to it" "You didn't count the strokes " he asked then he recovered humself with an effort.

"It was two o'clock you heard strike?" It was silent a moment. Then:

Probably was " "I don't know," said Gillis. "It might have been hardly & question, rather a statement.

" What did I say to you?"

"You asked me where you could find a dentist, and I directed you to Dr Sitgreaves across the street "

"You saw me enter Dr Sitgreaves' house?"

" Yes "

The accused glanced up at the Court and that eminent jurist proceeded to look solemn

"Dr Sitgreaves, please?" called the prisoner The dentist appeared, exchanging nods with the prisoner

"You remember me. doctor?"

"Yes"

"May I ask you to tell the Court where you live? Show us on this map please."

Dr Sitgreaves put his finger down at the spot which had been pointed out by the prisoner and by Policeman Gillis, two and a half miles from the Avon

"I live three doors from this corner," explained the dentist

"You pulled a tooth for me last night?" went on the prisoner

"Yes"

"Here?" and the prisoner opened his mouth

The dentist gazed down him.

"Yes," he replied.

"You may remember, doctor," went on the prisoner, quietly "that you had occasion to notice the clock just after I called at your house Do you remember what time it was?"

"A few minutes before two-seven or eight minutes, I think "

Detective Mallory and the Court exchanged bewildered glances.

"You looked at your watch, too Was that exactly

with the clock?"

" And what time did I leave your office?" the prisoner "Yes, within a minute

"Seventeen minutes past two—I happen to rememszked.

to the dentist straight into that official for an instant then turned back twice, his eyes met Detective Mallory's He stared The prisoner glanced dreamily around the room ber," was the reply.

It is possible that I got the stains on my fingers and "When you drew the tooth there was blood of course."

"Yes, certainly." clothing?"

puzzled expression on that official countenance. The prisoner turned to the Court and surprised a

have gone on a car in less than fifteen minutes—hardly half miles away in less than half an hour, I couldn't nesses—two of them city officials—that I was two and a the crime was two o'clock, I have shown by three witously. "It has been established that the moment of "Is anything else necessary?" he inquired courte-

the matter Finally he delivered himself, briefly. There was a long silence as the Court considered that."

correct we must accept the alibi." Sitgreaves, office If that is shown to be absolutely of witnesses—it is merely a question of the clock in Dr. his watch Of course there is no question of veracity Sitgreaves' clock was also accurate, because it was with the telegraph office, while it seems established that Dr Avon is attested by the known accuracy of the clock in the clocks," he said ". The accuracy of the clock at the " It resolves itself into a question of the accuracy of

The prisoner turned to the elevator man from the Avon

"What sort of a clock was that you mentioned?"

"An electric clock, regulated from Washington Observatory," was the reply

"And the clock at the telegraph office, Mr Mallory?"

"An electric clock, regulated from Washington Observatory"

"And yours, Dr Sitgreaves?"

"An electric clock, regulated from Washington Observatory"

The prisoner remained in his cell until seven o'clock that evening while experts tested the three clocks. They were accurate to the second, and it was explained that there could have been no variation of either without this variation showing in the delicate testing apparatus. Therefore it came to pass that Franklin Chase was released on his own recognizance, while Detective Mallory wandered off into the sacred precincts of his private office to hold his head in his hands and think.

CHYPTER XXV

Y GUESTION OF TIME

HUTCHINSON HATCH, reporter, had followed the in-

pansive brow, and these gave way in turn to a net-work talked on, corrugations appeared in the logician's exeverlasting squint in his blue eyes As the reporter known facts with petulant, drooping mouth and the distinguished gentleman listened to a recital of the S F X Van Dusen—The Thinking Machine That It was then that he called to see Professor Augustus broblem was groping hopelessly, blindly in the mazes of the dition was not unlike that of Detective Mallory—he Chase When this point was reached his mental conwhich immediately preceded the release of Franklin and including the expert examination of the clocks, Forrest's body, through the preliminary hearing, up to tricacies of the mystery from the discovery of De

and the alibi he offers is perfect But we know instantly way—that is the evidence against Mr Chase is perfect possesses the unusual quality of being perfect in each come to my attention," he said at last, " because it "This is one of the most remarkable cases that has

of wrinkles At the end The Thinking Machine sat

twiddling his long fingers and staring upward

that if Mr Chase killed Mr De Forrest there was something the matter with the clocks despite expert opinion

"We know that as certainly as we know that two and two make four, not some times but all the time, because our reason tells us that Mr Chase was not in two places at once at two o'clock Therefore we must assume either one or two things—that something was the matter with the clocks—and if there was we must assume that Mr Chase was responsible for it—or that Mr Chase had nothing whatever to do with Mr De Forrest's death, at least personally"

The last word aroused Mr Hatch to a new and sudden interest It suggested a line of thought which had not yet occurred to him

"Now," continued the scientist, "if we can find one flaw in Mr Chase's story we will have achieved the privilege of temporarily setting aside his defence and starting over. If, on the contrary, he told the full and exact truth and our investigation proves that he did, it instantly clears him. Now just what have you done, please?"

"I talked to Dr Sitgreaves," replied Hatch "He did not know Chase—never saw him until he pulled the tooth, and then didn't know his name. But he told me really more than appeared in court, for instance, that his watch had been regulated only a few days ago, that it had been accurate since, and that he knew it was accurate next day because he kept an important engagement. That being accurate the clock must be accurate, because they were together almost to the second.

"I also talked to every other person whose name appears in the case I questioned them as to all sorts of possibilities, and the result was that I was compelled

to accept the alibi-not that I'm unwilling to of course,

" You talked to the young men who nent into Mr the name as he was dying " but it seems peculiar that De Foirest should liave written

"'səX " Machine casually Chase's room at two o'clock?" inquired The Thinking

Chase's bed when they went in?" "Did you ask either of them the condition of Mr

The Thinking Machine raised his eyebrows slightly " pr ur They agreed that it was tumbled as if someone had been "Yes," replied the reporter. "I see what you mean

dentist's office?" number of a policeman who told you where there was a were looking for relief, would you stop to notice the ache," he asked after a moment, still casually, "and "Suppose, Mr. Hatch, that you had a violent tooth-

inscrutable face of the scientist Hatch considered it calmly, as he stared into the

mission of Detective Mallory, made an exhaustive search Later Hatch and The Thinking Machine by perso, and yet I might" "Oh, I see," he said at last. "No, I hardly think

"In the inside office, opposite the telephone booth," mam. "Where is your clock?" he inquired of the elevator single flight of stairs to the office he seemed perplexed When the Thinking Machine went down the of De Forrest's apartments in the Avon, seeking some

up and squinted fiercely into the very face of the time-The scientist went in and taking a stool, clambered was the reply piece He said "Ah!" once, non-commitally, then clambered down

"It would not be possible for anyone here to see a person pass through the hall," he mused "Now," and he picked up a telephone book, "just a word with Dr Sitgreaves"

He asked the dentist only two questions and their nature caused Hatch to smile. The first was

"You have a pocket in the shirt of your pajamas?"

"Yes," came the wondering reply

"And when you are called at night you pick up your watch and put it in that pocket?"

" Yes "

"Thanks Good-bye"

Then The Thinking Machine turned to Hatch

"We are safe in believing" he said, "that Mr De Forrest was not killed by a thief, because his valuables were undisturbed, therefore we must believe that the person who killed him was an acquaintance. It would be unfair to act hastily, so I shall ask you to devote three or four days to getting this man's history in detail, see his friends and enemies, find out all about him, his life, his circumstances, his love affairs—all those things"

Hatch nodded, he was accustomed to receiving large

orders from The Thinking Machine

"If you uncover nothing in that line to suggest another line of investigation I will give you the name of the person who killed him and an arrest will follow. The murderer will not run away. The solution of the affair is quite clear, unless—" he emphasized the word—" unless some unknown fact gives it another turn."

Hatch was forced to be content with that and for the specified four days laboured arduously and vainly

Then

he returned to The Thinking Machine and summed up results briefly in one word: "Mothing."

The Thinking Machine went out and was gone two hours. When he returned he went straight to the 'phone and called Detective Mallory. The detective appeared after a few minutes.

"Have one of your men go at once and arrest Mr. Chase," The Thinking Machine instructed. "You might explain to him that there is new evidence—an or this place to him. Anyway bring him here and I'll show you the flaw in the perfect alibi he set up!" Detective Mallory started to ask questions,

"It comes down simply to this," interrupted The Thinking Machine impatiently. "Somebody killed Mr. De Forrest and that being true it must be that that somebody can be found. Please, when Mr. Chase comes meter do not interrupt me, and introduce me to him as an important new witness."

An hour later Franklin Chase entered with Detective Mallory. He was somewhat pale and nervous and in his eyes lay a shadow of apprehension. Over it all was the gloss of ostentatious nonchalance and self control There were introductions. Chase started visibly at actual reference to the "important new witness."

"An eye witness," added The Thinking Machine, Positive fright came into Chase's manner and he quailed under the steady scrutiny of the narrow blue eyes. The Thinking Machine dropped back into his chair and pressed his long, white fingers tip to tip.

"If you'll just follow me a moment, Mr. Chase," he suggested at last. "You know Dr. Sitgreaves of course? Yes Well, it just happens that I have a

room a block or so away from his house around the corner These are Mr Hatch's apartments" He stated it so convincingly that there was no possibility of doubt "Now my room faces straight up an alley which runs directly back of Dr Sitgreaves's house There is an electric light at the corner"

Chase started to say something, gulped, then was silent

"I was in my room the night of Mr De Forrest's murder," went on the scientist, "and was up moving about because I, too, had a toothache—It just happened that I glanced out my front window". His tone had been courteous in the extreme, now it hardened perceptibly "I saw you, Mr Chase, come along the street, stop at the alley, glance around and then go into the alley. I saw your face clearly under the electric light, and that was at twenty minutes to three o'clock—Detective Mallory has just learned of this fact and I have signified my willingness to go on the witness stand and swear to it"

The accused man was deathly white now, his face was working strangely, but still he was silent. It was only by a supreme effort that he restrained himself

"I saw you open a gate and go into the back yard of Dr Sitgreaves's house," resumed The Thinking Machine "Five minutes or so later you came out and walked on to the cross street, where you disappeared Naturally I wondered what it meant It was still in my mind about half past three o'clock, possibly later, when I saw you enter the alley again, disappear in the same yard, then come out and go away"

"I-I was not—not there," said Chase weakly "You

were-were mistaken "

"When we know," continued The Thinking Machine steadily, "that you entered that house belove you entered by the front door, we know that you tampered with Dr. Sitgreaves's watch and clock, and when we know that you murdered you tampered with those we know that you murdered Mr. De Forrest as his dying note stated. Do you see it?"

Chase arose suddenly and paced feverishly back and forth across the room, Detective Mallory discreetly moved his chair in front of the door Chase saw and understood,

The Thinking Machine stopped and squinted up into chances and you knew it, but it was necessary " clock Thus your alibi was perfect. You took desperate then re-entered from the rear and reset the watch and you allowed time for the household to get quiet again, the front door bell After you left by the front door to Policeman Gillis whose number you noted and rang his bed, set that with the clock, then went out, spoke sleeping room. You found his watch on a table beside two You showed your daring by invading the dentist's actually a quarter of three—you made it a quarter of hands and moved them backward one hour. It was then that you simply took out the pin which held on the stop it, or interfere with the circuit. Therefore I see testing apparatus You were too superbly clever to to interfere with its action or cause any variation at the "I know how you tampered with the clock so as not

the pallid face Chase made a hopeless gesture with his hands and sat down, burying his face

"It was clever, Mr Chase," said the scientist finally "It is the only murder case I know where the criminal made no mistake You probably killed Mr. De Forrest

in a fit of anger, left there while the elevator boy was upstairs, then saw the necessity of protecting yourself and devised this alibi at the cost of one tooth. Your only real danger was when you made Patrolman Gillis your witness, taking the desperate chance that he did not know or would not remember just when you spoke to him."

Again there was silence Finally Chase looked up with haggard face

"How did you know all this?" he asked

"Because under the exact circumstances, nothing else could have happened," replied the scientist "The simplest rules of logic proved conclusively that this did happen" He straightened up in the chair "By the way," he asked, "what was the motive of the murder?"

"Don't you know?" asked Chase, quickly

" No "

"Then you never will," declared Chase, grimly
When Chase had gone with the detective, Hatch
lingered with The Thinking Machine

"It's perfectly astonishing," he said "How did you

get at it anyway?"

"I visited the neighbourhood, saw how it could have been done, learned through your investigation that no one else appeared in the case, then, knowing that this must have happened, tricked Mr Chase into believing I was an eye witness to the incidents in the alley. That was the only way to make him confess. Of course there was no one else in it."

One of the singular points in the Chase murder trial was that while the prisoner was convicted of murder on his own statement no inkling of a motive ever appeared

CHAPTER XXVI

THE SUPERFLUOUS FINGER

the, red hps were parted in a slight smile. It seemed the pretty face of his caller. It was flushed softly, and "Amputated?" gasped Dr Prescott. He stared into like to have it amputated at the first joint, please." "The fore-finger," she explained calmly. "I should Prescott told himself one that had never known labour, a pampered hand Dr wrist, it was distinctly the hand of a woman of easenails of the tapering fingers to the firm, well moulded cellent structural specimen From the polished pink

surgeon, professionally enough, set it down as an exartist would have called it beautiful, perfect, even, the

affaur, and offered her bare hand to the surgeon. SHE drew off her left glove, a delicate, crinkled suede

then permitted the blood to rush back into it. Several Dr Prescott pressed the pink nail of the fore-finger

men of your profession, and the cost of the operation is I have been informed that you are one of the most skilful "I came to you," she went on with a nod, " because

the hand with quick interest "Amputated 1" he requite an ordinary affair to her. The surgeon bent over

quite immaterial,"

casually.

"I understand that perfectly," she said "But where a person submits of her own desire to—to mutilation as you call it I can see no valid objection on your part."

"It would be criminal to remove a finger where there

". No good end could be served " continued the surgeon bluntly.

A trace of disappointment showed in the young

woman's face, and again she shrugged her shoulders "The question after all," she said finally, " is not one of ethics but is simply whether or not you will perform the operation Would you do it for, say, a thousand

dollars?" "Not for five thousand dollars," blurted the surgeon "Well, for ten thousand then?" she asked, quiet

All sorts of questions were pounding in Dr Prescott's mind. Why did a young and beautiful woman desire—why was she anxious even—to sacrifice a perfectly healthy finger? What possible purpose would it serve to mar a hand which was as nearly perfect as any he had ever seen? Was it some insane caprice? Staring deeply ever seen? Was it some insane caprice? Staring deeply into her steady, quiet eyes he could only be convinced of her sanity. Then what?

"Mo, madam," he said at last, vehemently, "I would not perform the operation for any sum you might mention, unless I was first convinced that the removal of that finger was absolutely necessary That, I think, is all "He arose as if to and the convinced that

He arose as if to end the consultation The woman remained seated and continued thoughtful for a minute " As I understand it," she said, " you would perform the operation if I could convince you that it was absorbe operation if I could convince you that it was absorbe operation if I could convince you that it was absorbe operation if I could convince you that it was absorbe operation if I could convince you that it was absorbe operation if I could convince you that it was absorbed on the convince of the co

"Certamly," he replied promptly, almost eagerly

His curiosity was aroused. "Then it would come within the range of my professional duties"

"Won't you take my word that it is necessary, and that it is impossible for me to explain why?"

"No I must know why "

The woman arose and stood facing him The dis-

appointment had gone from her face now

"Very well," she remarked steadily "You will perform the operation if it is necessary, therefore if I should shoot the finger off, perhaps—?"

"Shoot it off?" exclaimed Dr Prescott in amazement.

"Shoot it off?"

"That is what I said," she replied calmly "If I should shoot the finger off you would consent to dress the wound? You would make any necessary amputation?"

She held up the finger under discussion and looked at it curiously Dr Prescott himself stared at it with a sudden new interest.

"Shoot it off?" he repeated. "Why you must be mad to contemplate such a thing," he exploded and his face flushed in sheer anger "I—I will have nothing whatever to do with the affair, madam Good day"

"I should have to be very careful of course," she mused, "but I think perhaps one shot would be sufficient, then I should come to you and demand that you dress it?"

There was a question in the tone Dr Prescott stared at her for a full minute then walked over and opened the door

"In my profession, madam" he said coldly "there is too much possibility of doing good and relieving actual suffering for me to consider this matter or discuss it for

further with you. There are three persons now waiting in the ante-room who need my services. I shall be compelled to ask you to excuse me."

"But you will dress the wound?" the woman insisted, undainted by his forbidding tone and manner "I shall have nothing whatever to do with it," declared the surgeon, positively, finally "If you need the services of any medical man permit me to suggest

that it is an alienist and not a surgeon."

The woman didn't appear to take offence
"Someone would have to dress it," she continued insistently "I should much prefer that it be a man of undisputed skill—you I mean, therefore I shall call again Good day."

again Good day."

There was a rustle of silken skirts and she was gone frank wonder and annoyance in his eyes, his attitude, then he went back and sat down at the desk The crinkled suede glove still lay where she had left it. He examined it gingely then with a final shake of his examined it gingely then with a final shake of his

examined it gingerly then with a final shake of his head dismissed the affair and furned to other things head dismissed the affair and furned to other things office writing when the door from the ante-room where patients awaited his leisure was thrown open and the patients awaited his leisure was thrown open and the woung man in attendance rushed in "A lady has fainted, sir," he said hurriedly. "She seems to be built."

seems to be hurt."

Dr Prescott arose quickly and strode out. There, lying helplessly back in her chair with white face and closed eyes, was his visitor of the day before He stepped toward her quickly then hesitated as he recalled their conversation Finally, however, professional instinct, the desire to relieve suffering, and perhaps curiosity too,

caused him to go to her The left hand was wrapped in an improvised bandage through which there was a trickle of blood. He glared at it with incredulous eyes

"Hanged if she didn't do it," he blurted angrily

The fainting spell, Dr Prescott saw, was due only to loss of blood and physical pain, and he busied himself trying to restore her to consciousness. Meanwhile he gave some hurried instructions to the young man who was in attendance in the ante-room. "Call up Professor Van Dusen on the 'phone," he

directed, "and ask him if he can assist me in a minor operation. Tell him it's rather a curious case and I am sure it will interest him"

It was in this manner that the problem of the superfluous finger first came to the attention of The Thinking Machine He arrived just as the mysterious woman was opening her eyes to consciousness from the fainting spell She stared at him glassily, unrecognizingly, then her glance wandered to Dr Prescott She smiled.

"I knew you'd have to do it," she murmured weakly After the ether had been administered for the operation, a simple and an easy one, Dr Prescott stated the

circumstances of the case to The Thinking Machine
The scientist stood with his long, slender fingers resting
lightly on the young woman's pulse, listening in silence
"What do you make of it?" demanded the surgeon

The Thinking Machine didn't say At the moment he was leaning over the unconscious woman squinting at her forehead. With his disengaged hand he stroked the delicately pencilled eye-brows several times the wrong way, and again at close ringe squinted at them Dr Prescott saw and seeing, understood.

"No, it isn't that," he said and he shuddered a little

"I thought of it myself Her bodily condition is ev-

sleeping lightly, placidly under the influence of a sooth-It was some time later when the young woman was cellent, splendid "

brcked up a woman's glove from the desk he was sitting in Dr Prescott's private office He pad peculiar events which had preceded the operation Then ing potion, that The Thinking Machine spoke of the

"This is the glove she left when she first called, isn't

it?" he inquired.

" sə⊼ "

been answered. He rejoined Dr. Prescott.

" SəX " "Did you happen to see her remove it?"

her left hand. When at last he straightened up it slender figure; then, bending over, he looked closely at for an instant gazing down admiringly at the exquisite, adjoining room where the woman lay asleep He stood perfumed trifle, then, arising suddenly, went into the The Thinking Machine curiously examined the dainty,

seemed that some unspoken question in his mind had

things which may throw a light on the matter " ascertain for me where she goes, her name and other ping in the city I'll 'phone to Mr Hatch and have him That I can do when she returns to wherever she is stop-I should like to find out something more about her. now, I daresay, important developments will result and sponld not like to do so Within a few months from is of no importance to you beyond mere curiosity I conjq berhaps venture a conjecture but if the matter to have the finger amputated," he said musingly. "I " It's difficult to say what motive is back of her desire

"He will follow her?"

"Yes, precisely Now we only seem to know two acts in connection with her First, she is English"

\"Yes," Dr Prescott agreed "Her accent, her ap-

pearance, everything about her suggests that "

"And the second fact is of no consequence at the moment," resumed The Thinking Machine "Let me use your 'phone please"

Hutchinson Hatch, reporter, was talking

"When the young woman left Dr Prescott's she took the cab which had been ordered for her and told the driver to go ahead until she stopped him I got a good look at her, by the way I managed to pass just as she entered the cab and walking on down got into another cab which was waiting for me Her cab drove for three or four blocks aimlessly, and finally stopped. The driver stooped down as if to listen to someone inside, and my cab passed. Then the other cab turned across a side street and after going eight or ten blocks pulled up in front of an apartment house The young woman got out and went inside Her cab went away Inside I found out that she was Mrs Frederick Chevedon Morey She came there last Tuesday—this is Friday—with her husband, and they engaged—"

"Yes, I knew she had a husband," interrupted The

Thinking Machine.

"—engaged apartments for three months. When I had learned this much I remembered your instructions as to steamers from Europe landing on the day they took apartments or possibly a day or so before I was just going out when Mrs. Morey stepped out of the elevator and preceded me to the door She had changed her clothing and wore a different hat

"It didn't seem to be necessary then to find out where she was going for I knew I could find her when I wanted to, so I went down and made inquiries at the steamship offices I found, after a great deal of work, that no one of the three steamers which arrived the day they took apartments brought a Mr and Mrs. Morey, but one steamer on the day before brought a Mr. and Mrs. David Girardeau from Liverpool Mrs Girardeau answered the gown she wore when she left the steamer—that is the same she wore when she left Dr Prescott's after the operation."

That was all The Thinking Machine sat with his enormous yellow head pillowed against a high-backed chair and his long slender fingers pressed tip to tip He asked no questions and made no comment for a long time, then,

"About how many minutes was it from the time she entered the house until she came out again?"

". Not more than ten or fifteen," was the reply ". Io find out something about them "

". What do they pay for their apartment?" asked the

The Thinking Machine's squint eyes were fixed im-

movably on a small discoloured spot on the ceiling of his

"Whatever else may develop in this matter, Mr. Hatch," he said after a time, "we must admit that we have met a woman with extraordinary courage—nerve, I daresay you'd call it When Mrs Morey left Dr Prescott's operating room she was so ill and weak from

the shock that she could hardly stand, and now you tell me she changed her dress and went out immediately after she returned home "

"Well, of course—" Hatch said, apologetically

"In that event," resumed the scientist, "we must assume also that the matter is one of the utmost importance to her, and yet the nature of the case had led me to believe that it might be months, perhaps, before there would be any particular development in it"

"What? How?" asked the reporter

"The final development doesn't seem, from what I know, to belong on this side of the ocean at all," explained The Thinking Machine "I imagine it is a case for Scotland Yard The problem of course is What made it necessary for her to get rid of that finger? If we admit her sanity we can count the possible answers to this question on one hand, and at least three of these answers take the case back to England" He paused "By the way, was Mrs Morey's hand bound up in the same way when you saw her the second time?"

"Her left hand was in a muff," explained the reporter "I couldn't see but it seems to me that she wouldn't have had time to change the manner of its dressing"

"It's extraordinary," commented the scientist He arose and paced back and forth across the room "Extraordinary," he repeated "One can't help but admire the fortitude of women under certain circumstances, Mr Hatch. I think perhaps this particular case had better be called to the attention of Scotland Yard but first I think it would be best for you to call on the Morevs tomorrow—you can find some pretext—and see what you can learn about them. You are an ingenious young man—I'll leave it all to you"

Hatch did call at the Morey apartments on the morrow but under circumstances which were not at all what he expected. He went there with Detective Mallory, and Detective Mallory went there in a cab at full speed because the manager of the apartment house had 'phoned that Mrs Frederick Chevedon Morey had been found inturdered in her apartments. The detective ran up two flights of stairs and blundered, heavy-looted into the rooms, and there he paused in the presence of death

The body of the woman lay on the floor and some one had mercifully covered it with a cloth from the bed. Detective Mallory drew the covering down from over the face and Hatch stared with a feeling of awe at the beautiful countenance which had, on the day before, been so radiant with life. Now it was distorted into an exconvulsively. The mark of the limbs were drawn up convulsively. The mark of the inurderer was at the white, exquisitely rounded throat—great black bruises white, exquisitely rounded throat—great black bruises where powerful, merciless fingers had sunk deeply into the soft flesh.

A physician in the house had preceded the police sive look about the room Detective Mallory turned to him inquiringly

"She has been dead for several hours," the doctor volunteered, "possibly since early last night—It appears that some virulent, burning poison was administered and then she was choked. I gather this from an examination of her mouth."

These things were readily to be seen, also it was plainly evident for many reasons that the finger marks at the throat were those of a man, but each step beyond these obvious facts only served to further bewilder the

investigators First was the statement of the night elevator boy

"Mr and Mrs Morev left here last night about eleven o'clock," he said "I know because I' telephoned for a cab, and later brought them down from the third floor They went into the manager's office leaving two suit cases in the hall When they came out I took the suit cases to a cab that was waiting. They got in it and drove away "

"When did they return?" inquired the detective

"They didn't return, sir," responded the boy was on duty until six o'clock this morning. It just happened that no one came in after they went out until I was off duty at six "

The detective turned to the physician again

"Then she couldn't have been dead since early last night," he said

"She has been dead for several hours—at least twelve, possibly longer," said the physician firmly "There's no possible argument about that "

The detective stared at him scornfully for an instant, then looked at the manager of the house

"What was said when Mr and Mrs. Morey entered

your office last night?" he asked. "Were you there?"

"I was there, yes," was the reply "Mr Morey explained that they had been called away for a few days unexpectedly, and left the keys of the apartment with That was all that was said I saw the elevator boy take the suit cases out for them as they went to the cab "

"How did it come, then, if you knew they were away that some one entered here this morning, and so found the body?"

came up to see about it and saw-that" I thought their absence would be a good time for it. I "There was some electric wiring to be done in here and "I discovered the body myself," replied the manager.

He glanced at the covered body with a little shiver

ful for several minutes and a grimace. Detective Mallory was deeply thought-

that's an absolute fact. But how did she come here?" and the time her body was found this morning. Now night between the time she went out with her husband "If she is here she came back here, dead or alive last "The woman is here and she's dead," he said finally.

the elevator boy on duty had not spoken. Now he spoke Of the three employees of the apartment house only

because the detective glared at him fiercely

drivers up to the time the body was found" st all except the postman and some delivery wagon morning," he explained hastily. " Nobody had come in "I didn't see either Mr. or Mrs. Morey come in this

"Does any window of this apartment open on a fire Agam Detective Mallory turned on the manager.

escape?" he demanded.

"Yes-this way."

perpetrated to annoy him. sidered the entue matter some affair which they had one to the other of the silent little party as if he constage of the mvestigation he sat down and stared from the front way. When Detective Mallory reached this been fastened unless her murderer went out of the house into the room that way the windows would not have it appeared that even if the woman had been brought Both the windows were locked on the inside, so instantly They passed through the short hallway to the back.

Hutchinson Hatch started to say something, then thought better of it, and turning, went to the telephone below Within a few minutes The Thinking Machine stepped out of a cab in front and paused in the lower hall long enough to listen to the facts developed There was a perfect net-work of wrinkles in the dome-like brow when the reporter concluded

"It's merely a transfer of the final development in the affair from England to this country," he said enigmatically "Please 'phone for Dr Prescott to come here

ımmediately "

He went on to the Morey apartments With only a curt nod for Detective Mallory, the only one of the small party who knew him, he proceeded to the body of the dead woman and sounted down without a trace of emotion into the white, pallid face. After a moment he dropped on his knees beside the mert body and examined the mouth and the finger marks about the white throat

"Carbolic acid and strangulation," he remarked tersely to Detective Mallory who was leaning over watching him with something of hopeful eagerness in his stolid face The Thinking Machine glanced past him to the manager of the house "Mr Morey is a powerful, athletic man in appearance?" he asked.
"Oh no," was the reply "He's short and slight,

only a little larger than you are "

The scientist squinted aggressively at the manager as if the description were not quite what he expected Then the slightly puzzled expression passed.

"Oh, I see," he remarked. "Played the plano"

This was not a question, it was a statement.

"Yes, a great deal," was the reply, "so much so in

fact that twice we had complaints from other persons in the house despite the fact that they had been here only

a few days". "Of course," mused the scientist abstractedly. "Of

course. Perhaps Mrs. Morey did not play at all?"

". I believe sie told me she did not."

hand

The Thinking Machine drew down the thin cloth which

"Dear me! Dear me!" he exclaimed suddenly, and he arose "Dear me!" he repeated. "That's the—"

"This is Mirs Morey beyond any question?"

He turned to the manager and the two elevator boys

The answer was a chorus of affirmation accompanied

by some startling facial expressions.
"Did Mr and Mrs Morey employ any servants?"
"No," was the reply. "They had their meals in the

"No," was the reply. "They had their meals in the café below most of the time. There is no housekeeping in these apartments at all "

in these apartments at all."
"How many persons live in the building?"

"A hundred I should say."

"There is a great deal of passing to and ito, then?"
"Certainly. It was rather unusual that so few per-

sons passed in and out last night and this morning, and them if that's what you're trying to find out."

The Thinking Machine glanced at the physician who

he asked " How long do you make it that she's been dead ? " he asked hours." replied the physician " Pos-

". At least twelve hours," replied the physician. " Pos-

"Yes, nearer fourteen, I imagine,"

Abruptly he left the group and walked through the apartment and back again slowly. As he re-entered the room where the body lay, the door from the hall opened and Dr Prescott entered, followed by Hutchinson Hatch The Thinking Machine led the surgeon straight to the body and drew the cloth down from the face. Dr Prescott started back with an exclamation of astonishment, recognition

"There's no doubt about it at all in your mind?"

inquired the scientist.

"Not the slightest," replied Dr Prescott positively "It's the same woman"

"Yet, look here!"

With a quick movement The Thinking Machine drew down the cloth still more. Dr. Prescott together with those who had no idea of what to expect, peered down at the body. After one glance the surgeon dropped on his knees and examined closely the dead left hand. The fore-finger was off at the first joint. Dr. Prescott stared, stared incredulously. After a moment his eyes left the maimed hand and settled again on her face.

"I have never seen-never dreamed-of such a start-

ling---" he began

"That settles it all, of course," interrupted The Thinking Machine "It solves and proves the problem at once Now Mr Mallory if we can go to your office or some place where we will be undisturbed I will——"

"But who killed her?" demanded the detective

abruptly

"I have the photograph of her murderer in my pocket," returned The Thinking Machine "Also a photograph of an accomplice"

CHYPTER XXVII

THE CASE IS CLOSED

DETECTIVE MALLORY, Dr Prescott, The Thinking Machine, Hutchinson Hatch, and the apartment house

physician were seated in the front room of the Morey apartments with all doors closed against prying, inquisitive eyes. At the scientist's request Dr. Prescott repeated the circumstances leading up to the removal of a woman's left fore-finger, and there The Thinking Machine took up the story.

"Suppose, Mr. Mallory," and the scientist turned to "Suppose, Mr. Mallory," and the scientist turned to

the detective, "a woman should walk into your office think?"
"I'd think she must have a finger cut off, what would you think?"

"Maturally, in your position," The Thinking Machine went on, "you are acquainted with many strange happenings. Wouldn't this one instantly suggest something to you? Something that was to happen months off?" Detective Mallory considered it wisely, but was silent "Well here," declared The Thinking Machine. "A woman whom we now know to be Mrs. Morey wanted her finger cut off. It instantly suggested three, four, her finger cut off. It instantly suggested three, four,

hve, a dozen possibilițies. Of course only one, or possibily two in combination, could be true. Therefore

which one? A little logic now to prove that two and two always make four—not some times but all the time

"Naturally the first supposition was insanity We pass that as absurd on-its face Then disease—a taint of leprosy perhaps which had been visible on the left fore-finger I tested for that, and that was eliminated Three strong reasons for desiring the finger off, either of which is strongly probable, remained. The fact that the woman was English unmistakably was obvious From the mark of a wedding ring on her glove and a corresponding mark on her finger—she wore no such ring—we could safely surmise that she was married These were the two first facts I learned Substantiative evidence that she was married and not a widow came partly from her extreme youth and the lack of mourning in her attire.

"Then Mr Hatch followed her, learned her name, where she lived, and later the fact that she had arrived with her husband on a steamer a day or so before they took apartments here. This was proof that she was English, and proof that she had a husband. They came over on the steamer as Mr and Mrs. David Girardeau—here they were Mr and Mrs. Frederick Chevedon Morey. Why this difference in name? The circumstance in itself pointed to irregularity—crime committed or contemplated. Other things made me think it was merely contemplated and that it could be prevented, for then absence of every fact gave me no intimation that there would be murder. Then came the murder presumably of—Mrs. Morey?"

"Isn't it Mrs Morey?" demanded the detective

"Mr Hatch recognized the woman as the one he had followed, I recognized her as the one on which there

the entire affair" at all, but somebody else; and incidentally cleared up showed me that the dead woman was not Mrs Morey surgeon at the first joint. And this fact instantly forefinger was gone—it had been removed by a skilled the woman, I looked at her left hand. I found that the self, after I had found the manner of death, that it was continued the Thinking Machine. "To convince myhad been an operation, Dr. Prescott also recognized her," 782

just said that you had helped cut off her fore-finger?" "Dr. Prescott and I cut off that finger yesterday," "How?" demanded the detective. "I thought you

the dead woman had been cut off months, perhaps replied The Thinking Machine calmly. "The finger of

hitherto mexplicable. beginning to account for many things which had been of the scientist. Vaguely, as through a mist, he was face, and Hatch was staring straight into the squint eyes There was blank amazement on Detective Mallory's

enormous, so I was deginning to doubt the tenability of operation; that their expenses here must have been the fact that she had offered to pay a large sum for the company, by marring one. Of course against this was on her hands, and some trick to defraud the insurance had seen the bare possibility of an immense insurance Morey did not-or said she did not-play the piano I sumed. "Previously I had been informed that Mrs every possibility but one," The Thinking Machine re-The perfectly healed wound on the hand eliminated

removed the possibility of a crime of some sort in which was off removed that possibility completely, as it also this supposition. The fact that the dead woman's finger there might have been left behind a tell-tale print of that fore-finger—If there had been a serious crime with the trace of the finger as evidence, its removal would have been necessary to her

"Then the one thing remained—that is that Mrs Morey or whatever her name is—was in a conspiracy with her husband to get possession of certain properties, perhaps 2 title—remember she is English—by sacrificing that finger so that identification might be in accordance with the description of an heir whom she was to impersonate. We may well believe that she was provided with the necessary documentary evidence, and we know conclusively—we don't conjecture but we know—that the dead woman in there is the woman whose rights were to have been stolen by the so-called Mrs.

"But that is Mrs Morey, isn't it?" demanded the

detective again

"No," was the sharp retort. "The perfect resemblance to Mrs Morey and the finger removed long ago makes that clear There is, I imagine, a relationship between them—perhaps they are cousins. I can hardly believe they are twins because the necessity, then of one impersonating the other to obtain either money or a title, would not have existed so palpably although it is possible that Mrs Morey, if disinherited or disowned, would have resorted to such a course. This dead woman is. Miss—Miss—" and he glanced at the back of a photograph, "Miss Evelyn Rossmore, and she has evidently been living in this city for some time. This is her picture, and it was made at least a year ago by Harkinson here. Perhaps he can give you her address as well."

There was silence for several minutes Each member of the little group was turning over the stated facts

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"But how did she come here—like this?" Hatch photograph, studying the handwriting on the back. mentally, and Detective Mallory was staring at the

the difference?" taken for Mrs Morey? That no one would ever notice more could pass in and out at will and always be misthat when there is such a startling resemblance Miss Rossis a great deal of passing in and out Can't you see says a hundred persons hve in this house—that there the operation—it was Miss Rossmore. The manager Morey you saw then—she was ill and I knew it from out?" asked the scientist in turn. "It was not Aus Morey here you told me she dressed again and went "You remember, Mr Hatch, when you followed Mrs inquired.

"But who killed her?" asked Detective Mallory, curi-

ously. "How? Why"

manager here. He did not anticipate that the apartthe affair was Morey's act in leaving his keys with the have established the motive. The crowning delicacy of had in some way learned of their purpose That would why? We can suppose only that it was because she wonld give him the hand-power to choke her And stead of that he plays the piano a great deal, which powerful that he ruptured the jugular inside; but inbowerful man because his grip on her throat was so he choked her to death. I imagined first he was a large, then perhaps she was screaming with the pain of it, and presume that first he tricked her into drinking the acid, cation purposes. How did he kill her? We can fairly "There's his picture and his wife's picture for identifiand he produced two other photographs from his pocket, "Morey killed her," said The Thinking Machine flatly

ments would be entered for several days—after they were safely away—while there was a chance that if neither of them had been seen here and their disappearance was unexplained the rooms would have been opened to ascertain why That is all, I think "

"Except to catch Morey and his wife," said the

detective grimly

"Easily done with those photographs," said The Thinking Machine "I imagine, if this murder is kept out of the newspapers for a couple of hours you can find them about to sail for Europe Suppose you try the line they came over on?"

It was just three hours later that the accused man and wife were taken prisoner. They had just engaged passage on the steamer which sailed at half-past four o'clock. Their trial was a famous one and resulted in conviction after an astonishing story of an attempt to seize an estate and title belonging rightfully to Miss Evelyn Rossmore who had mysteriously disappeared years before

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The Princess Passes

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The Odd Women

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If Youth but Knew

The Man from America.

The Translation of a Savage

The Recipe for Diamonds,

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